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Alfred

CONTENTS OF VOLUME XV.

ORIGINAL COMMUNICATIONS.

	PAGE
ART. I.—Memoir on the Scythic Version of the Behistun Inscription. By EDWIN NORRIS, Esq.	J
ART. II.—Notes on the Early History of Babylonia. By COLONEL RAWLIN- SON, C.B.	215
ART. III.—Notes on the Ruins of Muqeyer. By J. E. TAYLOR, Esq.	260
ART. IV.—Chronology of the Reigns of Tiglath Pileser, Sargon, Shalma- nezer, and Sennacherib, in connexion with the Phenomenon seen on the Dial of Ahaz. By J. W. BOSANQUET, Esq.	277
ART. V.—Topography of Nineveh, illustrative of the Maps of the chief Cities of Assyria; and the general Geography of the Country inter- mediate between the Tigris and the Upper Zab. By FELIX JONES, Commander, Indian Navy, and Surveyor in Mesopotamia	297
ART. VI.—On the Orthography of some of the later Royal Names of Assyrian and Babylonian History. By COLONEL RAWLINSON, C.B.	398
Letter from Dr. Hincks, in reply to Col. Rawlinson's Note on the Successor of Sennacherib	402
ART. VII.—Notes on Abu-Shahreïn and Tel el Lahm. By J. E. TAYLOR, Esq.	404
ART. VIII.—Corrections of the Canon of Ptolemy, required in order to place it in harmony with the Solar Eclipses of Jan. 11th, B.C. 689, and May 28th, B.C. 585. By J. W. BOSANQUET, Esq.	416
Addenda to the Memoir on the Scythic Inscription	431

JOURNAL

OF

THE ROYAL ASIATIC SOCIETY.

ART. I.—*Memoir on the Scythic Version of the Behistun Inscription.* By MR. E. NORRIS.

[Read 3rd July, 1852.]

A SHORT time before the departure of Colonel Rawlinson from England, at the close of last year, that gentleman gave me leave to copy and publish the paper casts which he had made of the Scythic portion of the Behistun Monument of Darius, together with any memoir on the language which I might compile. I have availed myself of his permission, and the following paper is the result of my labour.

The Scythic version of the monument is contained in the three columns which are seen at the left hand of the first engraving of the volume commencing Colonel Rawlinson's Memoir on the Persian Cuneiform Inscription. Of these three columns, the middle one is in a state of almost perfect preservation; those on each side, as will be seen by the fac-simile at the head of this paper, are much mutilated, more especially the third, which was in such a condition that of one half of it no connected paper cast was taken. The damage which these columns have suffered appears to have been caused by the flow of rain through breaks in the ledge above, if we may judge from the circumstance that all the damaged portions are in perpendicular lines, running in close proximity to long bands which are entirely uninjured; and that no detached bits appear to be gone. The plates now published were taken from the casts by pantograph; and thus the form of each letter has been kept, and the proportionate amount of loss or damage is readily seen. In this way, an easy means is afforded of estimating the probability of any proposed restoration of lost passages. The characters drawn in outline are all conjectural restorations.

I have called the language of these inscriptions Scythic, after Colonel Rawlinson. I hope to be able to show that it is a language

of that class which has been denominated Tartar, Scythic, Tschudish, or Mongolian; and as there seems to be no reason why one of these words should be selected rather than another, the denomination given by Colonel Rawlinson is retained. The particular division of the class of language which I would compare it with, is one which has been called especially Ugrian, comprising as well the Magyar and the Ostiak, as the Permian, Zyrianian,¹ Cheremiss, and others spoken by small tribes living on and near the Volga; it has analogies which occasionally may be nearer to the Turkish or Mongolian, and it is not impossible that much closer analogies may be found hereafter with some other languages of Asia, which would at once end all our conjectures.

How long the use of the Scythian writing lasted may not be known; but it probably was not used before the time of Cyrus, nor subsequently to the fourth century before the Christian era. The short inscription of Cyrus, at Murghab, exists in a Scythic translation, the earliest relic we have; and I have recently received from Susa the copy of an inscription in the same language as late as the reign of Artaxerxes Mnemon, who began to reign about 405 B.C. (died 359); and, singularly enough, the inscription is equally ungrammatical with the Persian inscription of his son Artaxerxes Ochus, published by Lassen and by Rawlinson; and the errors of grammar consist in the same confusion of cases as is found on that very singular monument.

I am quite aware that after I have done all I can, much will remain to be effected by those who are skilled in the Ugrian tongues, in regard to which I can pretend to nothing more than some acquaintance with the grammatical essays and very scanty vocabularies which have been published within these few years in Russia and Germany. A vernacular knowledge of some of these tongues would lead to the discovery of resemblances which cannot be seen by one who is reduced to laborious hunting through the columns of a vocabulary, and who, after all, may find himself in possession of a mistake. The main object of the following paper is to put the version, in as usable a form as I could make it, into the hands of those who have such knowledge. I believe the chapter treating of the values of the numerous characters in the alphabet or syllabarium will be found to possess some degree of completeness; but the rest of the work is only a beginning, and no one is more assured than myself how much remains

¹ The true spelling of this word is restored from Russian authorities; the S was adopted by the Germans, to suit their pronunciation, in the same way as the Zend language is made by them Send. In the present instance, an obvious confusion is avoided by the adoption of Z.

undone. It would not perhaps have been difficult to produce a more complete memoir by a longer course of investigation; but the continual interruptions caused by a laborious and engrossing occupation prevent anything like a steady application to the study. It is therefore thought best to publish the paper, however imperfect, rather than wait for any possible improvements. I know that I am speaking the feeling of Colonel Rawlinson upon this matter when I say that it is under every consideration desirable to put his materials at once into the hands of those able to make use of them; and this would have been done earlier, but for his anxiety to have them prepared in an available form, which could not be done without some previous study, and which his own more important researches have not left him leisure to complete himself.

The inherent difficulties of this investigation, the little which is known of the languages analogous to that under consideration, the damaged state of the monument in many parts, the running together of all the words without division, which sometimes causes one to mistake the beginning of a subsequent word for the inflection of one preceding,—all this will be the best apology for the failures which will certainly be found in this memoir.

It will be understood that the principal interest of the investigation is philological only; but here and there the meaning of a passage will be gleaned which is unintelligible in the original Persian; and thus a few accessions may be obtained for the Assyrian and Babylonian vocabulary, through which alone we can hope to gain insight into some portions of the early history of mankind in Central Asia.

The question will no doubt be asked, what people it was who spoke the language under consideration; but I have really little more of positive information to communicate than what is stated by Colonel Rawlinson, in his *Memoir on the Persian Inscription*, p. 32—39. In allusion to what he says in p. 37, I may say that I believe the language to be wholly Scythic, and that any departure from that type which we may find is due to an intercourse with nations speaking Arian tongues, or else to the probable circumstance that the inscriptions were written, not by natives, but by Persians, who, because they were Persians, wrote it with a foreign admixture, in the same way as the Russians, who almost alone write the Ugrian languages, do occasionally mix up Russian words and idioms with those of the Ugrian tongues. Perhaps both causes concurred to produce the Arian influence which we find. There can be no doubt that the language was that of the pastoral tribes who inhabited the Persian empire; and,

whether known by the appellations of Dahæ, Sacæ, Mardi, or any others, they were fundamentally the same people, and spoke similar languages, which probably were allied to the language of Scythia Proper; that is to say, the Scythia of Herodotus, the extreme east of Europe and adjoining parts of Asia, where that branch of the Tartar tongues, especially called Ugrian, is still spoken by different tribes. It is but a feeble ground to build a foundation upon, but I would observe that the only peculiar name found attached to any place or province of Persia is the one attributed to Susiana; every other name is rendered by a Persian word, often corrupted, but still Persian; while Susiana is called neither by its Greek name, nor by the Semitic term *Elam*, nor the Arian *Uwaja*. The name, as I transcribe it, is Afartî for the province; Afarti, the people; and perhaps Afartu a single person; and this Afar may have been pronounced Avar, or Amar, or Abar. The first syllable is clearly the vowel *a*, though in two instances we find, instead of the vowel *a*, the character which makes the syllable *Han* of the Persian name Handita, which is, however, not quite determined in sound. The remainder of the word is written by a character which makes the first syllable of the name of the brother of Cambysses, who is called Smerdis by Herodotus, Mardos (or Mardis) by Æschylus, Mergis by Justin, and Bardiya in Persian. Now we find a race of men of pastoral and predatory habits spread about in several parts of Persia, called Mardi and Amardi. Most of them lived near the Caspian Sea; but one tribe was settled, so far as nomadic people do settle, between Susiana and Persis.¹ I would infer, but only as a guess, that the people who spoke the language of the inscriptions were these Amardi; the only people known by an indigenous name in a language are likely to have been the people who spoke that language, and they might give their name to the province over which they wandered. This is an inference like such a one as we might draw from finding three nations mentioned in a Welsh book by the names of Cymmry, Ysgotieid, and Saesoniad. We know the second and third to be the Scots and Saxons from the similarity of the names, and we suppose the unknown name, "Cymmry," to designate the Welsh, the people who spoke the language of the book. The name of the Avars, or Abars, a Scythian people located about the Volga in the sixth century, A.D., who for several years played an important part in the history of the decaying Roman empire, would suggest an affinity to the Amardi, and the resemblance of the Volga tongues to the language of the inscriptions might go in support of the suggestion; but, with the

¹ Strabo, lib. XI. cap. xiii. sec. 3, 6.

exception of such resemblances of name and language, the admitted Scythic character of the Avars, and the probability that, as a result of their early and enduring settlement in Hungary, their language would be a good deal mixed up with the Magyar as now spoken, I have nothing to offer in corroboration.

A few observations remain to be made on the plates. All the characters in black are deeply cut, and are well defined on the paper-cast; these are so sharp in outline, that they must be seen upon the rock as perfect as when they were engraved twenty-three centuries ago, and may be depended on. The shaded characters are more or less perfectly visible on the paper cast, but their accuracy can never be positively vouched for, unless where the word is pretty well known from the context; still no letter has been so set down which is not at least partially visible. When an outline only is given, the character has wholly disappeared from the cast, and the restoration is conjectural. Another visit to the rock will certainly bring out letters here and there which are gone in the cast; this is inferred, not merely from the loss of certain words in one cast which are perfectly visible in duplicate impressions, but also from the appearance on some parts of the inscriptions, copied by hand, of words which are invisible on all the casts taken.

I now proceed to the Memoir, which will begin by a verification of the alphabet, followed by a transcript of the inscription in Roman characters, letter by letter, with no other division of words than is found in the original. A grammatical sketch of the language comes next; then an analysis of all the inscriptions; and finally a vocabulary.

THE ALPHABET.

The Scythic alphabet, or rather syllabarium, is composed of about a hundred characters, of which two at least appear to be ideographs; ten are very rarely employed; and a few of these may be merely varied forms of some of the others. Each character represents a syllable, which may be either a single vowel, or a consonant and vowel, or two consonants with a vowel between them: examples of these are W = *a*, < = *ni*, >| = *par*, and >E = *ak*. It may be here observed that in characters whose sounds are known more or less accurately, I have always used one of the vowels *a*, *i*, or *u*, as in the Persian language, from which chiefly any notion of the power of the Scythic characters has been obtained: whenever the vowel *e* or *o* is used, it is an indication that I know nothing of the power of the character, and

that the syllable representing it has been taken for the purpose of identification, and to avoid the awkwardness of having to read a character without a sound. In every case of doubt I have adopted the power proposed by Westergaard in his able Memoir, printed in the Memoirs of the Society of Northern Antiquaries, Copenhagen, 1844, to the value of whose results, though based on very insufficient materials, I can bear the fullest testimony.

Many of the characters resemble those of the Babylonian alphabet, and it is probable that the more civilized Babylonians adapted their cumbrous mode of writing to the language of the uncivilized Scythians, in the same way as we employ the Roman alphabet for the languages of Africans and Polynesians, using only such characters as are wanted in the new language. The Babylonians thus were able to effect their object by one-third of the characters which they used in writing their own language, discarding a very superfluous amount of homophones and ideographs which had been either the result of a transition from hieroglyphs or picture-writing, or else were invented for the purpose of concealment, and of retaining the art of writing in the hands of a privileged few. This similarity of form has frequently aided in assigning the power of a Babylonian or Scythic character, in cases where the amount of evidence was greater on one side than on the other. There is usually some difference of shape between the Babylonian and Scythic group, as there is between two different specimens of the same Babylonian character; but they are generally nearly enough alike to be recognizable: as examples, the following may be adduced:—

Bab.	Scyth.	Bab.	Scyth.	Bab.	Scyth.	Bab.	Scyth.
<u>ri</u>		<u>at</u>		<u>s</u>		<u>vi or mi.</u>	

In forming the characters at Behistun there is more elegance in the shape and grouping of the wedges than at Persepolis and elsewhere: in the former we have , where the latter has ; and generally the stiff wedges of the latter are all of the same size, and placed parallel to each other, while those at Behistun have a curved outline: when four are together, the middle ones are much smaller than the others, and the wedges closing a character horizontal at Persepolis converge in the Behistun Inscriptions.

In one or two points of phonography this alphabet resembles that used by the Tamils: there is no distinction made between the surd and sonant consonants at the beginning of a word, and in the middle of a word the same consonant must have been pronounced as a sonant

when single, and a surd when double. The *Da* of Darius, for example, is made by the same character as the *Ta* of Takabara; and the *Ku* of Kurus and Kuganaka does not differ from the *Gu* of Gudrus: examples of the double consonant in the middle of words are Gumatta, Kappisakania, Yuttana, and very many others. This rule is not precisely without exception, but it is very generally observed.

I have arranged the alphabet in the following order:—vowels, labials, gutturals, dentals, aspirates, liquids, and sibilants, concluding with the semi-vowel *y*. In alleging the evidence for the sounds attributed to each character, the admitted corresponding Persian word is given, as transcribed by Colonel Rawlinson.

VOWELS.

1. **𐎠** *a*.—This character occurs in the following names:

𐎠 **𐎡** **𐎢** **𐎣** **𐎤** **𐎥** **𐎦** **𐎧** **𐎨** **𐎩** **𐎪** **𐎫** **𐎬** **𐎭** **𐎮** **𐎯** **𐎰** **𐎱** **𐎲** **𐎳** **𐎴** **𐎵** **𐎶** **𐎷** **𐎸** **𐎹** **𐎺** **𐎻** **𐎼** **𐎽** **𐎾** **𐎿** **𐏀** **𐏁** **𐏂** **𐏃** **𐏄** **𐏅** **𐏆** **𐏇** **𐏈** **𐏉** **𐏊** **𐏋** **𐏌** **𐏍** **𐏎** **𐏏** **𐏐** **𐏑** **𐏒** **𐏓** **𐏔** **𐏕** **𐏖** **𐏗** **𐏘** **𐏙** **𐏚** **𐏛** **𐏜** **𐏝** **𐏞** **𐏟** **𐏠** **𐏡** **𐏢** **𐏣** **𐏤** **𐏥** **𐏦** **𐏧** **𐏨** **𐏩** **𐏪** **𐏫** **𐏬** **𐏭** **𐏮** **𐏯** **𐏰** **𐏱** **𐏲** **𐏳** **𐏴** **𐏵** **𐏶** **𐏷** **𐏸** **𐏹** **𐏺** **𐏻** **𐏼** **𐏽** **𐏾** **𐏿** **𐐀** **𐐁** **𐐂** **𐐃** **𐐄** **𐐅** **𐐆** **𐐇** **𐐈** **𐐉** **𐐊** **𐐋** **𐐌** **𐐍** **𐐎** **𐐏** **𐐐** **𐐑** **𐐒** **𐐓** **𐐔** **𐐕** **𐐖** **𐐗** **𐐘** **𐐙** **𐐚** **𐐛** **𐐜** **𐐝** **𐐞** **𐐟** **𐐠** **𐐡** **𐐢** **𐐣** **𐐤** **𐐥** **𐐦** **𐐧** **𐐨** **𐐩** **𐐪** **𐐫** **𐐬** **𐐭** **𐐮** **𐐯** **𐐰** **𐐱** **𐐲** **𐐳** **𐐴** **𐐵** **𐐶** **𐐷** **𐐸** **𐐹** **𐐺** **𐐻** **𐐼** **𐐽** **𐐾** **𐐿** **𐑀** **𐑁** **𐑂** **𐑃** **𐑄** **𐑅** **𐑆** 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But the concurrence of the Babylonian $\Xi\Xi$, which is certainly i , and the sounds of the compound Scythic $\Xi\Xi\Upsilon$ and Babylonian $\Xi\Xi\Upsilon$, which are as certainly ya , give the highest probability that the power of this character is the one given.

3. \langle *u*.—This vowel is found in the following names:

$\Xi\Xi\Upsilon$ $\Upsilon\Upsilon\Upsilon\langle$ $\Xi\Xi\Upsilon$ $\Upsilon\Xi\Upsilon$ \langle $\Xi\Upsilon\Upsilon$ [Ta ri ya va u s] I. 1. Dariyavush.

$\Upsilon\Xi\Upsilon$ \langle $\langle\Xi\Xi$ $\Xi\Upsilon\Upsilon$ $\Upsilon\Upsilon$ [Va u vi s sa] II. 37, 40. Vumisa.

$\Upsilon\Upsilon\Xi$ \langle $\Upsilon\Xi$ $\Xi\Xi\Upsilon$ $\Xi\Upsilon\Upsilon$ $\Xi\Upsilon\Upsilon$ [A u ti ya ru s] II. 46. Autiyára.

$\Xi\Xi\Upsilon$ \langle $\Upsilon\Xi\Upsilon$ [Ya u na] vi. 23. Yuna.

$\Upsilon\Xi\Upsilon$ \langle $\Xi\Xi\Xi$ $\Upsilon\Upsilon$ [Va u uk ka] III. 92. Vahuka.

It is also found in the name of Ormazd; but as there is some doubt whether or not the initial character $\Upsilon\Upsilon\Upsilon$ may be a phonetic, or a determinative as in Babylonian, it is not brought forward in proof. The Persian "Dahyaush" is usually transcribed $\Xi\Xi\Upsilon$ $\Upsilon\Xi\Xi\Upsilon$ \langle $\Xi\Upsilon\Upsilon$ [Ta hi ya u s]; but in III. 65 the \langle is replaced by $\Xi\Upsilon\Upsilon\Upsilon$ hu : and in xv. 12, we have $\Xi\Xi\Upsilon$ \langle replaced by $\Upsilon\Upsilon\Upsilon\langle$ yu . An additional evidence is the undoubted value of \langle in Babylonian. We have Υ for \langle in the Artaxerxes Inscription.

4. $\Xi\Upsilon\Upsilon$ *e*.—This character has not been found hitherto in any name, and the only evidence of its power is the sound given to the similar Babylonian character $\Xi\Upsilon\Upsilon$.

LABIALS.

The preceding remarks upon the confusion of the surd and sonant powers of the consonants are valid here. There are, however, at least two distinct forms of one of the combinations in which the labial consonant appears, though the difference is not that which we make between

b and *p*. I have called one of these forms *pa* and the other *ba*, for the sake of distinction merely; there was no reason why the appellations should not have been reversed. I believe the consonant was the same in both.

5. $\Xi\Upsilon$ *ba*.—This character is found in the following proper names:

$\Xi\Upsilon$ $\Upsilon\Upsilon$ $\Xi\Upsilon$ [Ba pi lu] II. 1. Babiru.

$\Xi\Upsilon$ $\Upsilon\Upsilon$ $\Xi\Upsilon$ $\Upsilon\Upsilon$ $\Xi\Upsilon$ [Ba ik tar ri s] vi. 17. Bakhtarish.

$\Xi\Upsilon$ $\Upsilon\Upsilon$ $\Xi\Upsilon$ $\Upsilon\Upsilon$ $\Xi\Upsilon$ [Ba ga ya ti s] I. 41. Bagayadish.

$\Xi\Upsilon$ $\Upsilon\Upsilon$ $\Upsilon\Upsilon$ $\Xi\Upsilon$ [Ba ak ši s] II. 85. Bakhtarish.

$\Upsilon\Upsilon$ $\Xi\Upsilon$ $\Xi\Upsilon$ $\Upsilon\Upsilon$ $\Xi\Upsilon$ [Ka t ba tu kas] I. 12. Katpatuka.

$\Upsilon\Upsilon$ $\Xi\Upsilon$ $\Xi\Upsilon$ $\Upsilon\Upsilon$ [Ar ba ya] I. 11. Arabáya.

$\Upsilon\Upsilon$ $\Xi\Upsilon$ $\Xi\Upsilon$ $\Upsilon\Upsilon$ [Vi s ta as ba] I. 3. Vishtáspa.

$\Upsilon\Upsilon$ $\Upsilon\Upsilon$ $\Xi\Upsilon$ $\Upsilon\Upsilon$ [Tak vas ba ta] II. 61, 63. Khamaspáda(?).

$\Upsilon\Upsilon$ $\Upsilon\Upsilon$ $\Xi\Upsilon$ $\Upsilon\Upsilon$ $\Xi\Upsilon$ $\Upsilon\Upsilon$ [Pa ti ik rab ba na] II. 75. Patigrabaná.

$\Xi\Upsilon$ $\Upsilon\Upsilon$ $\Upsilon\Upsilon$ $\Xi\Upsilon$ $\Upsilon\Upsilon$ $\Upsilon\Upsilon$ [Ba ka pi ik na] III. 91. Bagabigna.

$\Xi\Upsilon$ $\Upsilon\Upsilon$ $\Xi\Upsilon$ $\Upsilon\Upsilon$ $\Upsilon\Upsilon$ $\Upsilon\Upsilon$ [Ba ka pu uk sa] III. 91. Bagabuksha.

$\Xi\Upsilon$ $\Upsilon\Upsilon$ $\Upsilon\Upsilon$ [Ba r sa] xv. 13. Pársá.

$\Xi\Upsilon$ $\Upsilon\Upsilon$ $\Upsilon\Upsilon$ $\Upsilon\Upsilon$ $\Xi\Upsilon$ $\Upsilon\Upsilon$ [Uk ba tar ra an va] I. 56. Upadarma.

Eight of the above words have *ba* in Persian, and four have *pa*, corresponding with $\Xi\Upsilon$. It is also found xi. as a transcript of the Persian word Paruzanánám, made

$\Xi\Upsilon$ $\Upsilon\Upsilon$ $\Upsilon\Upsilon$ $\Upsilon\Upsilon$ $\Xi\Upsilon$ $\Upsilon\Upsilon$ [Ba ru za na na m.]

The character has a similar value in Babylonian.

6. >< *pa* is found in these words:

>< >|> >||> >||> >||> [Pa ti ik rab ba na] II. 35.
Patigrabaná.

>||> >||> >||> >< >||> [Gar va pa tas] II. 76-7. Garmapada.

>||> >< >||> [Ar pa ra] II. 66. Arbirá.

>< >|> >||> >< >||> [Ni ti t pa al] I. 59. Naditabira.




In these four words the >< renders the Persian sounds of *pa* or *bi*; and this circumstance, combined with the similar use of this and the following letter >||> as a plural suffix, induces a belief that the Scythic language admitted the rules of vocalic harmony which are prevalent in the Magyar, Finnish, Turkish, Mongol, Manchu, and other languages of the family; >< containing the narrow, and >||>, the open, vowel: in other words, being pronounced *pe* and *pa*. A further investigation of this subject must be left to those who are skilled in these tongues; and the fact will no doubt be decided by the intelligence of a Gabelentz, Schott, or Castren.








7. >||> *fa*.—This letter has not yet been found in any proper name; but it is here classed among the labials, because it forms the plural number as a suffix to certain words instead of ><,¹ and because, in the phrase *farruirsarra-fa-ba*, frequently repeated in the inscription, the *fa*, in one instance (II. 28), is replaced by >||>, which is certainly *p*. These reasons show that the sound is a labial; *fa* is selected merely *differentiæ causa*.

¹ These suffixes are not added indiscriminately, but the termination >||> follows words whose last syllable begins with a liquid or semi-vowel, while >< follows those beginning with any other consonant; we have thus *Assura-fa*, *Arbaya-fa*, *Yauna-fa*, &c., for Assyrians, Arabians, and Ionians; and *Vata-pa*, *Sakka-pa*, *Markus-pa*, &c., for Medians, Sacæ, and Margians. This is not inconsistent with the principle of vocalic harmony as prevalent in the Manchu, Mongol, and Turkish languages, in all which certain consonants always affect certain vowels.

8.  *pi*.—Found in the following words:

    [Chi s pi s] I. 4. Chishpish.





   [Ba pi lu] II. 49. Babiru.

       [Ka p pi s sa ka ni s]
III. 24. Kapishkanish.






       [Ba ka pi ik na] III. 91. Bagabigna.



This character has the same value in Babylonian.

9.  *pu*.




     [Ba ka pu uk sa] III. 91. Bagabuksha.




     [Kan pu chi ya] I. 24. Kambujiya.





     [Nab pu ní ta] III. 38, 52. Nabunita.

Made  in the Artaxerxes Inscription. The Babylonian  has the same value.






10.  *par*.




   [Par san] I. 10. Pársa, Persia.

   [Par sar] II. 38. Pársa, a Persian.

    [Par thu vas] II. 68. Parthwa.

      [Vi in ta par na] III. 42-3. Vidafra.

     [Ta ka par ra] vi. 24. Takabara.

   [S par ta] vi. 22. Sparda.

   [Kau par va] III. 90. Gaubaruva.

      [Par ru za na na m] Paruzanánám, in the small Inscriptions.

The similar Babylonian  is read *bar*.

11. 𐎧𐎡𐎴 *far*.

𐎧𐎡𐎴 𐎧𐎡𐎴 𐎧𐎡𐎴 [Far ti ya] I. 23. Bardiya.

𐎧𐎡𐎴 𐎧𐎡𐎴 𐎧𐎡𐎴 𐎧𐎡𐎴 𐎧𐎡𐎴 [Far ru var ti s] II. 50. Fravartish.

𐎧𐎡𐎴 𐎧𐎡𐎴 𐎧𐎡𐎴 [Far ra ta] II. 79. Frada.

𐎧𐎡𐎴 𐎧𐎡𐎴 𐎧𐎡𐎴 𐎧𐎡𐎴 𐎧𐎡𐎴 [Far ra va ta ra m]

Framátáram, in the small Inscriptions.

This letter appears to have the power of *f* only, when coming before a syllable beginning with *r*, which is its usual position; and unless when *spelling*, I represent it by *f* only in such cases, writing *Frata*, *Fruvartis*, instead of *Farrata*, *Farruvartis*.

12. 𐎧𐎡𐎴 *pat*.—The only name in which this character is written is 𐎧𐎡𐎴 𐎧𐎡𐎴 𐎧𐎡𐎴 [Ka m pat tas], II. 20—in Persian *Kapada*. It seems clear that the character must have had something like this sound, unless we suppose it to be another form of *ba* and *pa*, which is very unlikely; but as the sound of *pat*, by doubling the consonant, would, as a general rule, produce the surd *t*, while *Kapada* has the sonant *d*, its value is set down at the lowest degree of certainty. It is a character of rare occurrence, and I do not remember it in any other word than 𐎧𐎡𐎴 𐎧𐎡𐎴 𐎧𐎡𐎴, in I. 46, which may represent the Persian *ayadana*; but the passage where the word is found is very obscure.

13. 𐎧𐎡𐎴 *p*.—The only proper name including this letter is 𐎧𐎡𐎴 𐎧𐎡𐎴 𐎧𐎡𐎴 𐎧𐎡𐎴 𐎧𐎡𐎴 [Ka p pi s sa ka ni s] III. 24. Kapiškanish. It is true that it occurs in the name of Vahyazdata, in the detached inscription H; but as the same name is written several times with 𐎧𐎡𐎴 *t*, instead of 𐎧𐎡𐎴 *p*, and the word requires *t*, there can be little doubt that 𐎧𐎡𐎴 is an error of the engraver. The character also occurs at the end of names in the Naksh-i-Rustam Inscription, apparently forming a plural, instead of 𐎧𐎡𐎴 *fa* or 𐎧𐎡𐎴 *pa*; this seems decisive as to its being a labial. In Babylonian it has the power of a terminal *p*, such as I ascribe to it.

It may be observed here, in respect of these terminal consonants, that those ending with *k* and *n* have each three forms, one of which appears usually to follow the vowel *a*, another *i*, and the third *u*; as *ak*, *ik*, *uk*; *an*, *in*, *un*. Those with *r* and *s* have each two forms, and, as a matter of convenience, I have distinguished them by the omission or addition of the vowel *a*, calling one set *r* and *s*, the other *ar* and *as*. This is done when transcribing or spelling merely; but when the inscriptions are divided into pronouncible words, I write *ap* and *at* for the initial *p* and *t*, and *ir* and *is* for the initial *r* and *s*, to distinguish them from *ar* and *as*; when similar vowels come together in the same word, as *hu*, *un*, I omit one, writing *hun*. In merely transcribing the inscriptions, without arbitrarily dividing the words, this is clearly inadmissible.

14. $\gg af$.—The authority for this value is but small, and I have had some idea of calling it *ef* as a mark of ignorance. It occurs twice in line 7, col. II., in the word meaning "Susiana," which is usually written $\gg \gg \gg \gg \gg \gg$ [A far ti]: in that line the word is written $\gg \gg \gg \gg \gg \gg$, and this would seem to give the vowel. In col. I. 40 there is a word $\gg \gg \gg \gg \gg \gg$, which I believe to be a transcript, and not a translation, of the Persian *patiyāvakiya*, somewhat clumsily rendering it *af ti ya van ya hi*. I think the character occurs in col. III. 36, in the word $\gg \gg \gg \gg \gg \gg$, *Hañdita*, in Persian, as read by Colonel Rawlinson, in his Notes and Corrections, page v.; but the value of the Persian $\gg \gg \gg$ is not certain, and the Scythic transcript is far from clear: it appeared at first to be $\gg \gg$; but then the perpendicular required before proper names would be wanting. It seems, on the whole, unsafe to draw any conclusion from this name, and the transcription *af* is here provisionally retained; perhaps a nasal *ān* might conciliate all: we should have *Añdita* for "Hañdita," and the Susians would be *Amardī*, an identification of some interest.

15. $\gg \gg \gg$ *pe*.

16. $\gg \gg$ *po*.

There is no authority for either of these values. I have taken *pe* for the first, because I find it in the words $\gg \gg \gg \gg \gg \gg$ (mean-

ing in all probability "ears," in Zyrianian *pely*), and in the word $\rightarrow\mathbb{V}\rightarrow \rightarrow\mathbb{E}\mathbb{V}\rightarrow$ (II. 58, "crucified" (?), in Ostiak *perna*, "a cross").¹ The value of *po* for \mathbb{E} I take from Westergaard, on the ground of its often following the character $\mathbb{E}\mathbb{V}$ *ap* in the same word. I am very much inclined to think he is right.

GUTTURALS.

The observations at the beginning of the Labial Series are valid here: we have two *ka*'s and two *kar*'s, which I distinguish by varying the consonant, but without supposing that such a distinction really existed in the language. In fact, I am on the whole of opinion that the difference was rather in the vowel.

17. $\rightarrow\mathbb{V}$ *ka*.—Found in these proper names:

$\rightarrow\mathbb{V} \mathbb{E}\mathbb{V} \rightarrow\mathbb{V} \rightarrow\mathbb{E}\mathbb{V} \mathbb{V} \rightarrow\mathbb{V} \leftarrow \rightarrow\mathbb{E}\mathbb{V}$ [Ka p pi s sa ka ni s]
III. 24. Kapiškanish.

$\rightarrow\mathbb{V} \mathbb{E}\mathbb{E}\mathbb{V} \mathbb{E}\mathbb{V} \rightarrow\mathbb{V} \mathbb{E}\mathbb{V} \mathbb{E}\mathbb{V}$ [Ka t ba tu kas] I. 12. Katpatuka.

$\rightarrow\mathbb{V} \rightarrow\mathbb{V} \mathbb{E}\mathbb{V} \rightarrow\mathbb{E}\mathbb{V} \rightarrow\mathbb{V}$ [Ka t ba tu ka] vi. 22. Idem.

$\mathbb{V}\mathbb{E} \mathbb{V}\rightarrow\rightarrow\mathbb{V} \rightarrow\mathbb{V}$ [A rak ka] III. 36. Arakha.

$\mathbb{V}\rightarrow\rightarrow\mathbb{V} \rightarrow\mathbb{V} \rightarrow\rightarrow\mathbb{V}$ [Rak ka an] II. 54, 73. Ragá.

$\mathbb{V} \rightarrow\mathbb{E}\mathbb{V} \rightarrow\mathbb{V}$ [Sa ak ka] I. 14. Saka.

$\mathbb{E}\mathbb{V} \rightarrow\mathbb{V} \mathbb{E}\mathbb{E}\mathbb{V} \mathbb{E}\mathbb{E}\mathbb{V} \mathbb{V}$ [Ba ka pu uk sa] III. 91. Bagabuksha.

$\mathbb{E}\mathbb{V} \rightarrow\mathbb{V} \rightarrow\mathbb{V} \rightarrow\mathbb{E}\mathbb{V} \rightarrow\mathbb{V} \mathbb{E}\mathbb{V}$ [Ba ka pi ik na] III. 91. Bagabigna.

Ka is also found in the names of Arakadrišh, I. 27; Akhámánish, I. 5; Varkána, II. 68; Vahuka, III. 92; Takabara, vi. 24; Tigrak-huda, vi. 20-1; Zaraka, vi. 18; Kráka, vi. 25; Sakuka, and perhaps some others.

¹ In this and similar cases I am compelled to anticipate. I hope to be able to show that the Ostiak, Zyrianian, and other Ugrian tongues are allied to the languages under investigation; but in the meantime the statement in the text must be taken *quantum valeat*. The transcription, at all events, is left with the vowel *e*, the sign of doubt or ignorance.

18. >𐎡< *gau*.—This character is obviously a compound, made up of >𐎡 *ak* and < *u*. It is found in—

>𐎡< 𐎡𐎠 𐎡𐎠 𐎡𐎠 𐎡𐎠 [Gau va t ta] I. 27. Gaumata.

>𐎡< >𐎠 𐎡𐎠 [Gau par va] III. 90. Gaubaruva.

19. >𐎡𐎠𐎠 *ga*. This is found only in the word

𐎡𐎠 >𐎡𐎠𐎠 𐎡𐎠𐎠 >𐎠𐎠 𐎡𐎠𐎠 [Ba ga ya ti s] I. 41. Bagayadish.

The impression is not very clear; but I think it is certain. Made 𐎡𐎠𐎠 in the Artaxerxes Inscription. The guttural is corroborated by the Babylonian >𐎡𐎠𐎠 *gi*.

20. <𐎡𐎠𐎠 *ki*.—Not found in any proper name. Westergaard (p. 326) supposes it—no doubt correctly—to be a guttural, and prefers the value of *kho*. I rather take *ki*, for greater simplicity, and because the similar Babylonian <𐎡𐎠 has that value. As a corroboration of its power as a guttural, cf. II. 22 and II. 38, where *ikta* and *ikti* have precisely the same signification; compare also the Parsanikka of I. 1, and the Parsanikki of the detached Inscription A, and of I. 58 and 61.

22. 𐎡𐎠 *ku*.—In

𐎡𐎠 𐎡𐎠 [Ku rus] I. 39. Kurush.

𐎡𐎠 𐎡𐎠 𐎡𐎠 [Va ku s] I. 26. Magush.

𐎡𐎠- 𐎡𐎠 𐎡𐎠 [Var ku s] II. 79, 82. Margush.

𐎡𐎠 𐎡𐎠 𐎡𐎠 >𐎠𐎠 𐎡𐎠𐎠 [Ku un tar ru s] II. 50. Gudrush.

𐎡𐎠 𐎡𐎠 𐎡𐎠 𐎡𐎠 𐎡𐎠 𐎡𐎠 [Tha t ta ku s] I. 14. Thatagush.

𐎡𐎠 𐎡𐎠 𐎡𐎠 >𐎠𐎠 [S ku t ra] vi. 24. Skudra.

𐎡𐎠 <𐎠 𐎡𐎠 [Ku ši ya] vi. 25. Kushiya.

𐎡𐎠 𐎡𐎠 𐎡𐎠 >𐎠𐎠 𐎡𐎠𐎠 [Nabu ku tar ru sar] I. 60.
Nabukhadrachara.







𐎡𐎠 𐎡𐎠 𐎡𐎠 >𐎠 >𐎠 >𐎠 [S ku in ka k ka] Detached K.
Sakuka.

𐎡𐎠 𐎡𐎠 𐎡𐎠 >𐎠 >𐎠 >𐎠 [Ku uk kan na ka an] II. 5.
Kugauaka.

The similar Babylonian 𐎡𐎠 is pronounced *ku*.

22.  *kan*.

    [Kan pu chi ya] I. 24. Kabujiya.

      [Ku uk kan na ka an] II. 5.
Kuganaka.

     [Vi ya kan na s] II. 72. Viyakhna.





   [Kan ta ra] vi. 19. Gadara.

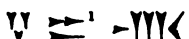
Westergaard suspected the value of this letter (see p. 297), but hesitated to place it on his list.

23.  *kar*.






      [Tha hi kar ri chi s] II. 35.
Thaigarchish.





  [Kar ka] vi. 25. Kraka.

    [Tu uk kar ra] III. 50. Thukra.






 Sakarri in the Artaxerxes Inscription = Sakri.






24.  *gar*.










     [As sa gar ti ya] II. 59. Asagartiya.





    [Gar va pa tas] II. 76-7. Garmapada.

25.  *kas*.


     [A na va ak kas] II. 43. Anamaka.

     [Ka ta ba tu kas] I. 12. Katpatuka.





    [Sar ra in kas] I. 12. Zaraka. The beginning of this name is lost; in vi. 18, the orthography is     [Sar ra an ka]. The character is made *kas* rather than *ka*, because most of the months end in *s*; so far that where no syllabic character ending in *s* exists,  *s* is added, as




¹ We find  always put for  in this Inscription; as  instead of .

in *Viyakannas*. It is moreover unlikely that we should find another form of *ka*, having two already. I have more than once thought that this and similar varieties differed from the usual form by a change of vowel only, and that they were used to represent the vocalic harmony characteristic of the Tartar tongues; and it is certain that the characters which I name *kas*, *tas*, *van*, &c., come more usually after the narrow than the broad sounds, as though they ought to be pronounced *ke*, *te*, *ve*. This subject requires further investigation; but it would require more leisure and greater skill in Tartar orthoëpy than I possess.

26.  *ak*.


     [A ak ka van ni s] I. 5. Hakhá-manish.

    [Ba ak ši s] II. 80-1, 85. Bákhtarish.

   [Sa ak ka] I. 14. Saka.

     [Va ak s țar ra] II. 10, 60. Uwakhshatara.


    [Ak va ta na] II. 56. Hagmatána.

The Babylonian  of the same value, may have been the prototype of this character.





27.  *ik*.



   [Ti ik ra] II. 29. Tigra.

    [Pa ti ik rab ba na] II. 75. Patigrabaná.

    [Ba ka pi ik na] III. 91. Bagabigna.






This character is not found in any other proper name on the Behistun Monument; but in common words it comes after syllables which do not terminate in *i*. At Persepolis, and elsewhere, it is found in proper names also after syllables ending in *a*, and as an initial:





    [Ba ik tar ri s] vi. 17. Bakhtarish.






    [Ik si r s sa] Kshiyarsha (Xerxes).




The Babylonian  reversed would be nearly the same character; its power is similar.

28.  *uk.*

     [Ku uk kan na ka an] II. 5.
Kuganaka.



    [Tu uk kar ra] III. 90. Thukra.











     [Ba ka pu uk sa] III. 91. Bagabuksha.


   [Su uk tas] I. 13. Suguda.

   [Va u uk ka] III. 92. Vahuka.



     [Uk ba tar ra an va] I. 56.
Upadarma.

I believe this to be the Babylonian , which has the same sound; the addition of the portion  is the principal difference between the characters.

The above terminal syllables appear to be sufficiently distinct: the rule observed in transcribing for reading has been to give the vowel of a terminal syllable, when it is unlike the closing vowel of the preceding character, but not otherwise: thus      is written *Huikki*, and      [yu far ri ik ki] I have written *yu/rikki*.

29.  *ke.* I. 67, 68.

30.  *ko.*

31.   *kwe.* II. 58.

I have no authority whatever for naming either of these characters; there is no reason for giving the names here affixed to them further than the convenience of having some sound appropriated: any other syllables would have been equally defensible. The first occurs in one word only, which is repeated, and it follows the character which I have named, with a certain degree of probability, *po*. This would

induce a conjecture that the sound was one which began with the vowel *o* or *u*; and we have a Babylonian character , not very much unlike it, sounded *uk*; but the rare occurrence of the character, and the series of conjectures which would be required, induce me to allow it to remain as it is. Westergaard proposed *ko* for the 'second character, which signifies "a king," and I follow him; but if the opinion expressed in the note at page 10 be well founded, the syllable could not have begun with *k*. In the Artaxerxes Inscription, the word seems to be or ; but I cannot read it. The last character occurs once only.

DENTALS.

Eleven characters appear to be appropriated to the unaspirated dentals, ten of which run in pairs; giving to the sounds *ta*, *ti*, *tu*, *t*, and *tar*, two characters each. It might be supposed at first sight, that one set of characters represented the sound of *d*, and the other that of *t*; but the incorrectness of that notion will be seen in the examples. The question then arises: In what do they differ? and to this my answer is, that they differ in the same way as the dentals differ from the so-called cerebrals in the Indian alphabets. I will here express my conviction that the sounds called cerebral are peculiar to the Tartar or Finnish class of languages; that the really Indian languages are all of Tartar origin, or, at least, that their phonetic and grammatical affinities are Tartar; and that the writers of Sanskrit adopted the sound from their Indian neighbours, in the same way that the Scandinavians appear to have adopted a similar sound from their neighbours, the Lapps, who are undoubtedly Tartars; the Icelanders, who retain the old Scandinavian language, pronouncing the words *falla* and *fullr* as though written *fadla* and *fudlr*.¹

It is certainly the case that this peculiar articulation has not been noticed as cerebral, so far as I know, by the writers who have treated of those languages; but this may be accounted for from the fact that Tartars have had few, if any, native grammarians; that, generally speaking, their languages are unwritten; and that, where written, the alphabet, not having been adopted by themselves, but given to them by nations more civilized than themselves, the difference between the dentals and cerebrals was not striking enough to a foreigner to induce

¹ See Rask's Icelandic Grammar, p. 21. Stockholm, 1818. 8vo.

him to invent new characters to designate the sounds new to him. But the existence of a *t* or *d* convertible into *l* is well known to Finnish philologists, and many examples may be given of that convertibility. A number of words may be cited in Ostiak (in which language the sounds are most distinct), where *t* or *d* becomes *l* in other dialects: thus *tau*, a horse, is *lo* in Magyar; *teda*, winter, becomes *tel*; *tet*, full, is *tele*; *teu*, a bone, *luu*, Finnish; *tunt*, goose, *lud*, Magyar; *tut*, fire, *tuli*, Finnish; *had*, to die, is *hal* in Magyar, and *kol* in Cheremiss; *hud*, to hear, Zyrianian *kul*; *yit*, the under part, Cheremiss *yl*; *met*, deep, Magyar *mély*; *midad*, to hire, *medal*, Zyrianian; *pet*, ear, Zyrianian *pelj*; and the number might be considerably increased. Castrén, a Finnlander, in his Ostiak Grammar uses distinct characters for the cerebral and dental *d* and *t*, though not giving them these denominations, and directs that the former should be pronounced somewhat aspirated, with the addition of *l*, as *dhl* or *dl*, and *thl* or *tl*; observing that similar sounds occur in the Lappish and Finnish tongues.¹

We shall first give the dentals.

32. $\Xi-\Pi$ *ta*.

$\Xi-\Pi$ $-\Pi\Pi$ $\Xi\Pi$ $\Xi\Pi$ $\Xi\Pi$ $\Xi\Pi$ [Ta ri ya va us] passim.
Darayavush.

$\Xi-\Pi$ $\Xi\Pi$ $\Xi\Pi$ $\Xi\Pi$ $\Xi\Pi$ [Ta tar ši is] II. 21. Dadarshish.

$\Xi-\Pi$ $\Xi\Pi$ $\Xi\Pi$ $\Xi\Pi$ $\Xi\Pi$ [Ta ka par ra] vi. 24. Takabara.

$\Xi\Pi$ $\Xi\Pi$ $\Xi\Pi$ $\Xi\Pi$ [Far ra ta] II. 79. Frada.

$-\Pi\Pi$ $\Xi\Pi$ $\Xi\Pi$ $\Xi\Pi$ [Yu t ta na] III. 90. Utana.

$\Xi\Pi$ $\Xi\Pi$ $\Xi\Pi$ $\Xi\Pi$ $\Xi\Pi$ [Vi s ta as ba] I. 3. Vishtáspa.

$\Xi\Pi$ $\Xi\Pi$ $\Xi\Pi$ $\Xi\Pi$ $\Xi\Pi$ [Sa t tar ri t ta] II. 10.
Khshathrita.

$\Xi\Pi$ $\Xi\Pi$ $\Xi\Pi$ $\Xi\Pi$ $\Xi\Pi$ [Gau va t ta] I. 27. Gaumata.

¹ Ostiak Grammar, p. 7. St. Petersburg, 1849. 8vo. I use the word Tartar in its widest signification, without wishing for one moment to insist upon its propriety; I mean nothing more than the "Allophylian" of Dr. Prichard.

𐎲𐎠𐎶 is found also in the names of Nabunita, III. 88; Mada, I. 37; Vahyasdata, III. 1; Saparda, vi. 22; Daduhya, III. 91; Ardashtana, X.; Hagmatána, II. 56; Khamaspáda, II. 61; Vidafra, III. 42-3; Tigrakhuda, vi. 20-1; Thatagush, I. 14; Gadara, vi. 19; Suguda, I. 13; Auramazda, and perhaps some others.

33. 𐎠𐎶𐎠 *ti*.

𐎠𐎶𐎠 𐎠𐎶𐎠𐎶𐎠 𐎠𐎶𐎠𐎶𐎠 [Ti ik ra] II. 29. Tigra.

𐎠𐎶𐎠 𐎠𐎶𐎠 𐎠𐎶𐎠 [Var ti ya] III. 52. Martiya.

𐎠𐎶𐎠 𐎠𐎶𐎠 𐎠𐎶𐎠 𐎠𐎶𐎠 [As sa gar ti ya] II. 59. Asagartiya.

𐎠𐎶𐎠 𐎠𐎶𐎠 𐎠𐎶𐎠 [Far ti ya] I. 23. Bardiya.

𐎠𐎶𐎠 𐎠𐎶𐎠 𐎠𐎶𐎠 𐎠𐎶𐎠 [Far ru var ti s] II. 50. Fravartish.

Also in Bagayadish, I. 41; Atriyatiya, II. 84; Autiyára, II. 45; Patigrabaná, II. 75; Naditabira, I. 59; Harauvatish, I. 14.

34. 𐎠𐎶𐎠 *tu*.—Found in no other names than these:—

𐎠𐎶𐎠 𐎠𐎶𐎠 𐎠𐎶𐎠 𐎠𐎶𐎠 [Si in tu s] vi. 19-20. Hidush (India).

𐎠𐎶𐎠 𐎠𐎶𐎠 𐎠𐎶𐎠 𐎠𐎶𐎠 [Ka t ba tu ka] vi. 22. Katapatuka.

Both these words are mutilated in Westergaard's copy; but the letter 𐎠𐎶𐎠 is uninjured, and there seems no doubt of the power. The similar Babylonian 𐎠𐎶𐎠 has the same power.

35. 𐎠𐎶𐎠 *tak*.—I had named this character *kam* from finding it in the name of Khamaspáda, written 𐎠𐎶𐎠 𐎠𐎶𐎠 𐎠𐎶𐎠 II. 61, 63; but it occurred also in the name Chitratakhma, written

𐎠𐎶𐎠 𐎠𐎶𐎠 𐎠𐎶𐎠 𐎠𐎶𐎠 𐎠𐎶𐎠 in II. 59, and

𐎠𐎶𐎠 𐎠𐎶𐎠 𐎠𐎶𐎠 𐎠𐎶𐎠 𐎠𐎶𐎠 in the Detached Epigraph,

which would give the value *tak*, and I was thus compelled to suppose this word clumsily rendered Chitrakamma. Very recently I have received from Colonel Rawlinson a short inscription of Artaxerxes Mnemon, from Susa, where the name of the monarch is written several times 𐎠𐎵 𐎠𐎵 𐎠𐎵 𐎠𐎵 𐎠𐎵, which is decisive for the sound *tak*. For the name of Khamaspáda we must suppose either that it was incorrectly transcribed in Scythic, or that a mistake has been made in copying the Persian name, which may have been Takhmaspáda. It is lost in the Babylonian version.

36. 𐎠𐎵𐎠𐎵 *tar*.

𐎠𐎵 𐎠𐎵 𐎠𐎵 𐎠𐎵 𐎠𐎵 𐎠𐎵 [Nabn ku tar ru sar] I. 60.
Nabukhadrachara.

𐎠𐎵𐎠𐎵 𐎠𐎵𐎠𐎵 𐎠𐎵𐎠𐎵 [Ta tar ši s] II. 21. Dadarshish.

𐎠𐎵 𐎠𐎵𐎠𐎵 𐎠𐎵𐎠𐎵 𐎠𐎵𐎠𐎵 [Ba ik tar ri s] vi. 17.
Bakhtarish.

Made by error 𐎠𐎵𐎠𐎵 in Detached Inscription.

37. 𐎠𐎵𐎠𐎵 *tas*.

𐎠𐎵 𐎠𐎵𐎠𐎵 𐎠𐎵𐎠𐎵 [Su uk tas] I. 13. Suguda.

𐎠𐎵𐎠𐎵 𐎠𐎵𐎠𐎵 𐎠𐎵𐎠𐎵 [Gar va pa tas] II. 76-7. Garmapada.

See 𐎠𐎵 *kas* (No. 25), for a reason why the sound of *s* is added to this syllable. At Naksh-i-Rustam, Sogdia is written with 𐎠𐎵𐎠𐎵, indicating the resemblance of sound to this syllable.¹ Observe also that the word *yutlas*, he did, is written 𐎠𐎵𐎠𐎵 𐎠𐎵𐎠𐎵 𐎠𐎵𐎠𐎵 [yu t ta s] at Behistun, and 𐎠𐎵𐎠𐎵 𐎠𐎵𐎠𐎵 [yu t tas] at Naksh-i-Rustam; and at Behistun, when a verb is made pluperfect by the

¹ The second letter in the name of this province at Naksh-i-Rustam is 𐎠𐎵𐎠𐎵, as appears from Professor Westergaard's Note, page 293; he thought he saw 𐎠𐎵𐎠𐎵, but having no precedent for the form, he wrote it 𐎠𐎵𐎠𐎵 *ku*.

39. $\Sigma\Pi\Pi$ *ta*.—This letter does not occur in any proper name; but the Persian *awaschiya* is rendered by $\Sigma\Pi\Pi < \Sigma\Pi\Pi$ [yu pa ta] in xv. 20, and $\Sigma\Pi\Pi < \Sigma\Pi\Pi$ [yu pa ta] in xvii. 25, and the word “vita,” of frequent occurrence, is made $\Sigma\Pi\Pi \Sigma\Pi\Pi$ in II. 23, and $\Sigma\Pi\Pi \Sigma\Pi\Pi$ in II. 39. I fear there is no other direct authority; a word which precedes the name of Hystaspes in similar passages, appears to be made by $\Sigma\Pi\Pi \Sigma\Pi$ in xi. 18, and $\Sigma\Pi\Pi \Sigma\Pi\Pi$ in vi. 9-10; but the engraving is carelessly done. I place more dependence on the word $\Sigma\Pi\Pi < \Sigma\Pi\Pi < \Sigma$ [t al ni], a horseman, from the Ostiak *tau*, Magyar *lo*, a horse; but the affinity of the languages must be tested by Tartar scholars before this can be assented to. In the meantime the power must be set down as highly probable.

40. $\Sigma\Pi\Pi \Sigma$ *ti*.—One reason for supposing this character to represent *ti* is its interchanging with $\Sigma\Pi$ in the word *Afarti*, which is used for Susiana and the Susians. It is true that *Afar_{ti}* is used for the place, I. 10, II. 2, &c., and *Afarti* for the people, I. 57, III. 50; but the sounds must have been allied. A still stronger proof is the word $\Sigma\Pi\Pi \Sigma\Pi$ [ti pi], “a writing” or “tablet,” a transcript of the Persian *dipi*, used also in the Kapur-di-giri Inscription, as equivalent to the *lipi* of the Girnār Monument. This appears decisive as to the cerebral character of $\Sigma\Pi\Pi$.

41. $\Sigma\Pi\Pi$ *tu*.

$\Sigma\Pi\Pi < \Sigma\Pi\Pi < \Sigma\Pi\Pi$ [Var tu ni ya] III. 91. Marduniya.

$\Sigma\Pi\Pi \Sigma\Pi \Sigma$ $\Sigma\Pi\Pi$ [Tu uk kar ra] III. 90. Thukra.

$\Sigma\Pi \Sigma\Pi \Sigma\Pi \Sigma\Pi \Sigma\Pi$ [Ka t ba tu kas] I. 12. Katpatuka.

$\Sigma\Pi\Pi \Sigma\Pi \Sigma\Pi \Sigma$ $\Sigma\Pi\Pi$ [Ta t tu van ya] III. 91. Daduhya.

$\Sigma\Pi \Sigma\Pi \Sigma$ Σ [Tu ba an ...] III. 37. Dubaña.

44. $\Xi\Upsilon\Xi\Upsilon$ *te*. II. 58.

45. $\Xi\Upsilon\Xi$ *tye*. I. 23, 33; III. 73.

There is no evidence as to the sound of either of these characters. The last was named *tye*, because it was composed of the groups $\Xi\Upsilon$ and Ξ . It might be *am*, from the resemblance of the Babylonian $\Xi\Upsilon\Delta$.

ASPIRATED DENTALS.

46. $\Upsilon\Xi\Xi$ *tha*.

$\Upsilon\Xi\Xi \Xi\Upsilon \Xi\Upsilon \Upsilon\Xi \Xi\Upsilon$ [Tha t ta ku s] I. 14. Thatagush.

$\Upsilon\Xi\Xi \Upsilon \Xi \Xi\Upsilon \Xi\Upsilon \Xi\Upsilon$ [Tha hi kar ri chi s] II. 35.
Thaigarchish.

This seems decisive of the etymological connection of $\Upsilon\Xi\Xi$ and the Persian $\Upsilon\Upsilon$; but the pronunciation may have been more like *z*. The similar Babylonian $\Upsilon\Xi\Xi$ is made *ša* by Colonel Rawlinson.

47. $\Xi\Xi\Upsilon$ *thu*.

$\Xi\Xi\Upsilon \Xi\Xi \Xi\Xi \Xi\Xi$ [Thu r va r] II. 27. Thuravahara.

$\Upsilon \Xi\Xi\Upsilon \Upsilon$ [Par thu vas] II. 69. Parthwa.

These examples are decisive, and, as an additional evidence, we have the form of the character, composed of $\Xi\Xi$ and Υ , which will be shown to have the sounds of *si* and *su*; combinations of sibilants appear generally to produce a modification of *t*, as in Atrina, Atriyatiya, and Chitratakhma.

ASPIRATES.

Two characters only are set down as aspirates, $\Upsilon\Upsilon$ *hi*, and $\Xi\Upsilon\Upsilon$ *hu*; and of these the latter has no positive claim to the denomination. Possibly some of those letters which are unappropriated may have

represented aspirates; but until we have further evidence, this must remain undetermined. The syllables *hi* and *hu* are certainly near approximations to the real sounds.

48. 𐎶 𐎠 *hi*.

𐎶𐎠 𐎶 𐎠𐎶 𐎶𐎠 𐎶𐎠 [Tha hi kar ri chi s] II. 35.
Thaigarchiab.

𐎶𐎠 𐎶 𐎠𐎶 𐎶 𐎶𐎠 [A hi na hi ra] I. 59. The Persian has
only Aina left; the Babylonian has
𐎶 𐎠𐎶 𐎶𐎠 𐎶𐎠 Haniri'.

𐎶𐎠 𐎶 𐎶𐎠 < 𐎶𐎠 [Ta hi ya u s] I. 25. Dahyaus.

𐎶𐎠 𐎶𐎠 𐎶𐎠 𐎶𐎠 𐎶𐎠 [Af ti ya van ya hi] I. 40-1. Pati-
yavahi.

The Babylonian 𐎶 is the same character, but its value appears to have been *ha*.

49. 𐎶𐎶𐎶 *hu*.

𐎶𐎶𐎶 𐎶𐎶 𐎶𐎶𐎶 [Hu i ya va] II. 33.

The Persian has only U....ama; the Babylonian is lost.

𐎶𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶𐎶 [Hu fa ra tu] I. 72. Ufratava
(Euphrates).

This word is faint; but the first two letters at least are pretty certain.




In the termination *uba*, the first letter is sometimes 𐎶𐎶𐎶 and sometimes 𐎶𐎶𐎶 *yu*: cf. II. 25, 33. The Persian *dahyaush*, province, is transcribed in four different ways, the sound between *h* and *s* being made by 𐎶𐎶𐎶 < *ya*u, 𐎶𐎶𐎶 𐎶𐎶𐎶 *ya*hu, 𐎶𐎶𐎶 *yu*, or 𐎶𐎶𐎶 *hu* only; this is decisive as to the value being some modification of *u*. The similar Babylonian 𐎶𐎶𐎶 is certainly *hu* or *u*.



50. 𐎶𐎶𐎶𐎶 *he*.—This character is found, I believe, only in the word 𐎶𐎶(?) 𐎶𐎶 𐎶𐎶𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶𐎶 in I. 67. I have no clue to its value, and the signification of the word is not quite sure.

LABIAL NASALS.





All the consonants under this head have the values of both *m* and *v* or *w*, or else the same sound serves to express both ideas. The same character expresses the *ma* of Gaumata, and the *va* of Vivana; and the initial sound in the name of Vishtaspa is made by the same character as the second element of Armenia. If, therefore, we choose to give the same invariable power to the same character, we must call Darius and Media either *Dariyamaus* and *Mata*, or *Tariyavaus* and *Vata*. I have always used the *v* in spelling, except for the terminal consonant, which I render by *m*; but in dividing sentences and making words for reading, I choose the value which sounds best, or is found, for any other reason, most convenient. The same confusion is found in Babylonian; and the Celtic languages exhibit very numerous instances of the convertibility of *m* and *v*.




51.  *va*.





   [Va ku s] I. 26. Magush.





  [Va ta] I. 37. Mada.

    [Gau va t ta] I. 27. Gaumata.

    [A na va ak kas] II. 43. Anamaka.

   [Va u uk ka] III. 92. Vahuka.

    [Va u vi s sa] II. 37-8. Vaumisa.





    [Thu r va r] II. 27. Thuravahara.

This letter is found also in Arshama, I. 3; Uvakhshatara, II. 10; Dariyavush, Hagmatana, II. 56; Garmapada, II. 75; Hariva, vi. 17; Parthwa, II. 3; Uvázazmish, vi. 15; Harauvatish, III. 25; Uhyama, II. 33; Vivana, III. 21; and Marus, II. 16.

52.  vi.




    [Vi s ta as ba] I. 3. Vishtáspa.




     [Vi s ta t ta] III. 1. Vahyazdata.






    [Vi r ka ni ya] II. 68. Varkána.

     [Vi ya kan na s] II. 72. Viyakhna.

     [Vi in ta par na] III. 89-90.
Vidafrana.


   [Vi tar na] II. 13. Vidarna.

   [Vi va na] III. 21. Vivana.









     [Va ra s vi s] vi. 18.
Uvárazmish.







    [Va u vi s sa] II. 37-8. Vaumisa.

   [Ar vi ni ya] I. 12. Arminiya.

This character is equivalent to the Babylonian , and the sound is the same.

53.  vu.—This is found in no other name than

    [Vu t sa ri ya] I. 11; II. 2-3. } Mudráya
    [Vu sar ra ya] vi. 21-2. } (Egypt).

I have no doubt of the power, and Colonel Rawlinson is of opinion that it is merely a graphic variety of the Babylonian , which has the same value. It has been confounded hitherto with  and . It is the first letter of the word    *marwa*, the earth, allied to the Ugrian *mu*.

54. \triangleright *van*.

$\text{𐎧𐎠𐎡𐎹} \triangleright \text{𐎧𐎠𐎡𐎹} \triangleright \text{𐎧𐎠𐎡𐎹} \triangleright \text{𐎧𐎠𐎡𐎹} \text{ [A k ka van ni s] I. 4-5.}$
Hakhámanish.

$\text{𐎧𐎠𐎡𐎹} \triangleright \text{𐎧𐎠𐎡𐎹} \triangleright \text{𐎧𐎠𐎡𐎹} \text{ [M van ni s] II. 6.}$ Imanish.

$\text{𐎧𐎠𐎡𐎹} \triangleright \text{𐎧𐎠𐎡𐎹} \triangleright \text{𐎧𐎠𐎡𐎹} \triangleright \text{𐎧𐎠𐎡𐎹} \text{ [Ta t tu van ya] III. 91.}$ Daduhya.

$\triangleright \triangleright \text{𐎧𐎠𐎡𐎹} \triangleright \text{𐎧𐎠𐎡𐎹} \text{ [Af ti ya van ya hi] I. 40.}$ Patiavahi.

The sound of this character may have been *ve*, as proposed by Westergaard, but the convenience of distinguishing the characters wholly unknown, by the vowels *e* and *o*, determines the transcription here adopted. Some grammatical reasons also will be seen which may induce a preference for the sound of *van*.

55. 𐎧𐎠𐎡𐎹 *var*.

$\text{𐎧𐎠𐎡𐎹} \triangleright \text{𐎧𐎠𐎡𐎹} \text{ [Var ti ya] III. 52.}$ Martiya.

$\text{𐎧𐎠𐎡𐎹} \triangleright \text{𐎧𐎠𐎡𐎹} \text{ [Var ku s] II. 79.}$ Marguva.

$\text{𐎧𐎠𐎡𐎹} \triangleright \text{𐎧𐎠𐎡𐎹} \text{ [Var tu ni ya] III. 91.}$ Marduniya.

$\text{𐎧𐎠𐎡𐎹} \triangleright \text{𐎧𐎠𐎡𐎹} \triangleright \text{𐎧𐎠𐎡𐎹} \text{ [Far ru var ti s] II. 51.}$ Fravartish.

The Babylonian alphabet has the same character.

56. 𐎧𐎠𐎡𐎹 *vas*.

$\text{𐎧𐎠𐎡𐎹} \triangleright \text{𐎧𐎠𐎡𐎹} \text{ [Tak vas ba ta] II. 61.}$ Khamaspáda (?).

$\text{𐎧𐎠𐎡𐎹} \triangleright \text{𐎧𐎠𐎡𐎹} \text{ [Par thu vas] II. 68.}$ Parthwa.

$\text{𐎧𐎠𐎡𐎹} \triangleright \text{𐎧𐎠𐎡𐎹} \text{ [An u ra vas ta] Auramazda.}$

The Babylonian sound of this character was *vi*.

To prevent ambiguity, when syllables are not divided, I sometimes write this *vas*. See note to No. 37, page 23.

57. $\triangleright \text{𐎧𐎠𐎡𐎹}$ *vach*.—In Westergaard's Median transcript of the Naksh-i-Rustam Inscription, line twenty-five, we find the word $\triangleright \text{𐎧𐎠𐎡𐎹} \text{ 𐎧𐎠𐎡𐎹}$, which his Persian copy of the same monument

reads *Madayá*. Rawlinson, in his "Note," p. xxi., states that the Persian is really *Machiyá*; I would restore the Median, which is mutilated, to >𐎠𐎡𐎢 𐎠𐎡𐎢 𐎠𐎡𐎢, and read it *vachchiya*. It is a slight corroboration of this opinion, that the verb "I cut off" is certainly rendered in II. 55 >𐎠𐎡𐎢 𐎠𐎡𐎢 𐎠𐎡𐎢 and in 65 >𐎠𐎡𐎢 𐎠𐎡𐎢, which would be *vach chi ya* and *vach chi*, allied to the Magyar *vag*, of the same signification. The transcript, therefore, is given as probable.

58. 𐎠𐎡𐎢 = *m*.

𐎠𐎡𐎢 𐎠𐎡𐎢 𐎠𐎡𐎢 [R sa m va] I. 3. Arshama.

𐎠𐎡𐎢 >𐎠𐎡𐎢 𐎠𐎡𐎢 >𐎠𐎡𐎢 𐎠𐎡𐎢 >𐎠𐎡𐎢 [Ar ri ya ra m na]
I. 4. Ariyaramna.

𐎠𐎡𐎢 > < >𐎠𐎡𐎢 [M van ni s] II. 6. Imanish.

It is found also for the final *m* in the following transcripts of Persian substantives, in Westergaard's copies published by Lassen.

<𐎠𐎡𐎢 >𐎠𐎡𐎢 [Ši ya ti m] Shiyatim.

𐎠𐎡𐎢 𐎠𐎡𐎢 < >𐎠𐎡𐎢 [Ta hi ya u na m] xv. 7.
Dahyunám.

𐎠𐎡𐎢 >𐎠𐎡𐎢 𐎠𐎡𐎢 𐎠𐎡𐎢 >𐎠𐎡𐎢 𐎠𐎡𐎢 [Far ra va ta ra m]
xvii. 8, &c. Framatáram.

𐎠𐎡𐎢 >𐎠𐎡𐎢 𐎠𐎡𐎢 >𐎠𐎡𐎢 𐎠𐎡𐎢 [Ta t ša ra m] ii. 6. Tacharam.

This circumstance, and the awkwardness of a final *v*, has determined me to transcribe this character always by *m*.

In III. 14, the character is made, by the error of the sculptor, 𐎠𐎡𐎢.

59. >𐎠𐎡𐎢 *ven*.—This syllable is used because the word 𐎠𐎡𐎢 >𐎠𐎡𐎢 (a man) may be connected with the Mordwin *loman*: but I would not set it down even as probable, and therefore the mark of ignorance is retained. I rather think the final sound was *r*.

60. >𐎠𐎡𐎢 *mon*.—This character means a month, which is the only reason for giving the syllable *mon*. The character is a mere graphical alteration of the Babylonian <𐎠𐎡𐎢.

NASALS.

61. >=| na.

>=| >=| <| >=| [A s ši na] I. 58. Atrina.

<=| >=| >=| >=| >=| [Vi in ta par na] II. 89-90.
Vidafrana.

<=| >=| >=| >=| >=| [Vi ya kan na s] II. 72. Viyakhna.

>=| >=| >=| >=| >=| [Ak va ta na] II. 56. Hagmatána.

>=| >=| >=| >=| >=| [A na va ak kas] II. 43. Anamaka.

<=| >=| >=| [Vi va na] III. 21. Vivana.

Found also in Ariyaramna, I. 4; Patigrabaná, II. 75; Utana, III. 90; Yauna, I. 11-2; and in one place only, III. 52, Nabunita is written with >=| instead of >=|.

The Babylonian >=| is probably the same character.

62. <- ni.

>=| <-| <-| <-| [Ar vi ni ya] I. 12. Arminiya.

>=| >=| >=| >=| <-| >=| [A k ka van ni s] I. 4-5. Hakhá-
manish.

>=| >=| <-| >=| [M van ni s] II. 6. Imanish.

<=| >=| >=| <-| >=| [Vi r ka ni ya] II. 68. Varkána.

>=| >=| >=| >=| >=| <-| >=| [Ka p pi s sa ka ni s]
III. 24. Kapiškanish.

<-| >=| >=| <-| >=| [Ni ti t pa al] I. 59. Naditabira.

>=| >=| <-| >=| [Var tu ni ya] III. 91. Marduniya.

<-| >=| >=| >=| [Ni s sa ya] I. 43. Nisáya.

This is perhaps the Babylonian <-|, which appears, however, to have had the sound of nu.

63. $\text{𐎶𐎶} \text{ n}i$.—The only proper name found containing this character is that of Nabonidus, generally made $\text{𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶}$ [Nab pu nī ta]. I have been inclined to read it *nin* or *nūt*; but its occurrence as an intermediate syllable between the first personal pronoun and its genitive case-ending *na*, makes it likely that the sound was short. The Babylonian $\text{𐎶𐎶} \text{ n}i$ is the same letter.

64. $\text{𐎶𐎶} \text{ nab}$ or *nabu*.—It is only found in two proper names, and never elsewhere.

$\text{𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶}$ [Nabu ku tar ru sar] I. 60.
Nabukdrachara.

$\text{𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶}$ [Nab pu nī ta] III. 38. Nabunita.

It is a singular irregularity that in the former name 𐎶𐎶 represents a dissyllable; while in the latter the addition of 𐎶𐎶 has been found expedient. In III. 52, 𐎶𐎶 is used instead of 𐎶𐎶 .

65. $\text{𐎶𐎶} \text{ an}$.

$\text{𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶}$ [Sar ra an ka] vi. 18. Zaraka
(*Σαράγγαι*).

$\text{𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶}$ [Chi s sa an tak va] Det. G.
Chitratakhma.

$\text{𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶}$ [Rak ka an] II. 54. Ragá.

$\text{𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶}$ [Ku uk kan na ka an] II. 5.
Kuganaka.

$\text{𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶} \text{ 𐎶𐎶}$ [An(?) u ra vas ta] Auramazda.

The result appears to be that this letter had a nasal pronunciation, like the French *an*, more vocalic than consonantal. Zaraka, in I. 13, and Chitratakhma, in II. 59, have 𐎶𐎶 , which has more authority for its nasal power, instead of 𐎶𐎶 . That the final *n* was not a well-defined sound appears from its omission in Persian, as well in the words Zaraka, Chitratakhma, Ragá, and Kuganaka, as in those which contain the articulations *in* and *un*, which we shall presently see.

Holtzman, in a valuable paper,¹ concludes, from the occurrence of the $\gg\text{Y}$ in the Median words meaning "God," "heaven," and "Ormuzd," and in Babylonian, as well as from the omission of the Y usual before names, that the character is here a determinative only, and non-phonetic; but although the determinative power of the character is admitted, the merely vocalic nasal sound suits the name of Ormuzd sufficiently well; and the Pahlavi Anhuma retained by the Parsees, gives some countenance to the appropriation of this value to the word. We have a curious passage in III. 61, where a false god appears to be called $\gg\text{Y}$ YY , the Scythic name for "god," without the determinative, which must mean "celestial."

66. $\gg\text{Y}$ $\gg\text{Y}$ in.

$\langle\gg\text{Y}\rangle$ $\gg\text{Y}$ $\gg\text{Y}$ $\gg\text{Y}$ $\gg\text{Y}$ $\gg\text{Y}$ [Vi in ta par na] III. 89. Vidafrana
(Ἰνταφέρνης).

$\gg\text{Y}$ $\gg\text{Y}$ $\gg\text{Y}$ $\gg\text{Y}$ $\gg\text{Y}$ [Si in tu s] vi. 19-20. Hidush (India).

$\gg\text{Y}$ YY $\gg\text{Y}$ $\gg\text{Y}$ $\gg\text{Y}$ $\gg\text{Y}$ [S ku in ka k ka] Det. K.
Sakuka.

$\gg\text{Y}$ $\gg\text{Y}$ Y $\gg\text{Y}$ $\gg\text{Y}$ $\gg\text{Y}$ [Chi s sa in tak va] II. 59.
Chitratakhma.

It is not clear whether $\gg\text{Y}$ YY YY $\gg\text{Y}$ [Ar as in na] in Ins. x. is to be considered as a transcript of Athagina or not; but the names of India and Intaphernes appear to establish the value of the character. The Babylonian $\gg\text{Y}$, which has the same power, corroborates the value given.

67. YY un.

YY YY YY YY [Ku un tar ru s] II. 50.

YY YY YY YY Gundur in Babylonian.

There is no other authority, but the character never occurs except after a syllable terminating with *u*, and it serves the same office after the pronoun *Hu*, I, as is filled by $\gg\text{Y}$ after *Ni*, thou. The Babylonian value and form also agree with this. The transcription is therefore adopted without hesitation.

¹ Zeitschrift der Deutschen morgenländischen Gesellschaft, Vol. V. p. 162.

68. 𐎠𐎡 ne.

69. 𐎠𐎢 no.

70. 𐎠𐎢𐎡 nos.

I have no knowledge of the sound of either of these characters.

LIQUIDS.

The Persian alphabet being without the letter *l*, no inference can be drawn by its aid as to any distinction between *r* and *l* in the Scythic alphabet; but as some of the names transcribed are known by their Hebrew and Greek equivalents, if we find any distinction made in Scythic where these equivalents have distinct letters, it is fair to assume that the *l* found in the names as written in those languages, represents the power of the Scythic transcripts. Now we do really find such a distinction made very generally. It is not invariable, for the last syllable of the name of *Arbela* is written like the second character of *Phraates* and *Phraortes*; but I do not think there is any other exception. At any rate, however the value of the distinction may be disputed, its existence is certain, and the use of *r* and *l*, as a means of indicating it, may be adopted.

71. 𐎠𐎢𐎡 ru.

𐎠𐎢𐎡 𐎠𐎢𐎡 [Far ra ta] II. 79. Frada.

𐎠𐎢𐎡 𐎠𐎢𐎡 [Ti ik ra] II. 29. Tigra.

𐎠𐎢𐎡 𐎠𐎢𐎡 [As su ra] I. 10-11. Athurá (Assyria).

𐎠𐎢𐎡 𐎠𐎢𐎡 𐎠𐎢𐎡 𐎠𐎢𐎡 [A ri ya ra m na]
I. 4. Ariyaramna.

𐎠𐎢𐎡 𐎠𐎢𐎡 [Ar pa ra] II. 66. Arbira.

𐎠𐎢𐎡 𐎠𐎢𐎡 𐎠𐎢𐎡 𐎠𐎢𐎡 [Nabu ku tar ra sar] Det. D.
generally 𐎠𐎢𐎡 ru.𐎠𐎢𐎡 𐎠𐎢𐎡 𐎠𐎢𐎡 [Va ra s vi s] vi. 18. Uvaraz-
mish.𐎠𐎢𐎡 𐎠𐎢𐎡 < 𐎠𐎢𐎡 𐎠𐎢𐎡 [Ar ra u va ti s] I. 14.
Harauvatish.

Also in Uvakhshatara, II. 10; Auramazda, *passim*; Takabara, vi. 24; Mudráya, I. 11; Skudra, vi. 24; Gandara, vi. 19; Zaraka, vi. 18; Arakadrish, I. 27.

The character is made sometimes in this way, >EYY<, which is not much unlike the Babylonian EYY, also pronounced *ra*.

72. >YYY< *ri*.

EYY >YYY< EYY IYY < >YY [Ta ri ya va u s] I. 1.
Daryavush.

Y EY I- >YYY< EY E-YY [Sa t tar ri t ta] II. 10.
Khehathrita.

YYE >YYI< EE EYY [A ri i ya] I. 13. Hariva.

EY >YYE> EY> >YYY< >YY [Ba ik tar ri s] vi. 17.
Bakhtarish.

I-YY Y < >YYY< EYY >YY [Tha hi kar ri chi s] II. 35.
Thaigarchish.

>EYE >YYY< EYY >EYY- >YYE >Y [Ar ri ya ra m na]
I. 4. Ariyaramna.

This is clearly the Babylonian >YY<Y transposed.

73. EYY ru.

EY IYE EY> EYY E>YY [Nabu ku tar ru sar] I. 60.
Nabukhadrachara.

>EYE EYY IYY >YE >YY [Ar ru va ti s] vi. 19.
Harauvatish.

IYE EY I- EYY >YY [Ku un tar ru s] II. 50. Gudrush.

EY EYY >YY- >YE >YY [Far ru var ti s] II. 50. Fravartish.

YYE < >YE EYY EYY >YY [A u ti ya ru s] II. 45. Autiyára.

>Y EYY YY >Y >Y >YYE [Par ru sha na na m] Paruzanánám.

The Babylonian *ru*, made >YYY, is no doubt the same character.

74. EY- rab.

>- >YE >YYE> EY- EY >Y [Pa ti ik rab ba na] II. 75.
Patigrabaná.

There is no other authority, but the appropriation is confirmed by the value of the Babylonian —.

75. *rak.*

[A rak ka] III. 36. Arakha.

[Rak ka] II. 54. Rakhá.

[A rak ka tar ri s] I. 27.
Arakadrish.

76. *ras.*

[Ku ras] I. 39. Kurush (Cyrus).

[Va ras vi ya] I. 13. Uvárazmiya.

I had adopted at first the syllable *rus*, but I am inclined to think *ras* the better transcript. My reasons are that no other compound syllable has been found with any other vowel than *a*, and that in the proper name of Uvarazmiya, at Naksh-i-Rustam is replaced by *ras*. I think the character sounded *ras* in the Babylonian alphabet, is only graphically different from the one under consideration.

77. *ar.*

[Ar vi ni ya] I. 12. Arminiya.

[Ar pa ra] II. 66. Arbira.

[Ar ba ya] I. 11. Arabaya.













[Ar ra u va ti s] I. 14.
Haraumatish.




[Ar ri va] vi. 17. Hariva.

[Ar ri ya] vi. 11. Ariya.

[Ar ri ya ra m na]
I. 4. Ariyaramna.







I believe this to be always initial: it is sometimes made .





78.  *r*.     [Vi r'ka ni ya] II. 68. Varkána.   [R sa va] I. 2. Arsháma.    [Thu r va r] II. 27. Thuravahara.



This letter seems to designate the vocalic *r* which is found in the Indian languages. In transcribing, I use *r* without a vowel, unless when initial: it is then written *ir* to distinguish the letter from . In cases where there may be ambiguity, it is made by *ir*; as in  *vasir*. The Babylonian , of the same value, is the same letter, the only difference being that the lower horizontal wedge is continued through.



79.  *ro*.80.  *re*.

} These values are purely arbitrary.

81.  *lu*.—There is no other name to give as evidence of this character than    [Ba pi lu] II. 1. Babirush (Babylon). The Persians, having no *l*, were of course unable to distinguish  from ; but we derive our knowledge of the difference from the Greek and Hebrew sounds of the proper name.

82.  *al*.    [Ni ti t pa al] I. 59. Naditabira.

The Babylonian form of this name shows that  represents the god Bel, and is therefore conclusive as to the value of the consonant. In the Babylonian alphabet,  is made *ul*, which may be the sound of the Scythian character.

83.  *el*.—Occurs once only, III. 31: the value is adopted partly from the resemblance in form with the preceding, and partly from the Babylonian  *eli*.

SIBILANTS.

There are two sets of sibilants, as there are of dentals; and they probably differed from each other as *s* from *sh*, or as the Arabic س from ص: the difference can scarcely have been like that between *s* and *z*, because the distinction between surd and sonant appears to be unknown to the Scythic alphabet. In this uncertainty I have made a distinction between the characters by putting a dot under the *s* in one of the sets, which I omit in the other.

84. Ṽ ṣa.

Ṽ ṣ-ḫ-ḫ [Sa ak ka] I. 14. Saka.

Ṽ ṣ ṣ-ḫ-ḫ ṣ-ḫ ḫ-ḫ [As sa gar ti ya] II. 59. Asagartiya.

Ṽ ṣ ṣ-ḫ-ḫ ḫ-ḫ [R sa m va] I. 3. Arsháma.

Ṽ ṣ < ḫ-ḫ ṣ ṣ [Va u vi s sa] II. 37. Vaumisa.

Ṽ ṣ ṣ ṣ ṣ ṣ ḫ-ḫ ḫ-ḫ [Chi s sa in tak va] II. 59.
Chitratakhma.

Ṽ ṣ ṣ ṣ ṣ ṣ ḫ-ḫ ḫ-ḫ [Sa t ṣar ri t ta] II. 10.
Khshathrita.

Ṽ ṣ ṣ ṣ ṣ ḫ-ḫ ḫ-ḫ [Sa ak sa ba va] II. 80. Khshatra-
páwa, a Satrap.

The Babylonian equivalent has exactly the same form.

85. Ṽ si.





Ṽ ṣ ḫ-ḫ ḫ-ḫ ḫ-ḫ [Si in tu s] vi. 19-20. Hidush (India).


Ṽ ṣ ḫ-ḫ ḫ-ḫ ḫ-ḫ [Ik si r sa] Khshayárhá.

These words are restored from the copies of Westergaard, who has not distinguished Ṽ from Ṽ in any of his transcripts. The value given is confirmed by the derivation of the adverb Ṽ ṣ ḫ-ḫ ḫ-ḫ ḫ-ḫ *irsikki*, "greatly," from the adjective Ṽ ṣ ḫ-ḫ ḫ-ḫ ḫ-ḫ *irsarra* or *irsa*, "great," allied to the Magyar *erős* and Ostiak *ar*, which have the same meaning.




86.  *su.*

    [As su ra] II. 41. Athurá (Assyria).

    [Su uk tas] I. 13. Suguda.




This value is confirmed by the Babylonian alphabet, where  forms the equivalent syllable.

87.  *san.*







   [Par san] I. 10, 30. Pársa (Persis).






There can be no doubt about the sound of *s* in this character: for the final *n* I have only the value given by Colonel Rawlinson in his Babylonian alphabet.

88.   *sar.*

   [Par sar] II. 14. Pársa, a Persian.

      [Nabu ku tar ru sar] I. 60.
Nabukhadrachara.

      [Sar ra an ka] vi. 18. Zaraka
(Σαράγγαι).

     [Vu sar ra ya] vi. 21-2. Mudraya.


In the last three cases the consonant appears to be different from the ordinary *s*, and more like the *z*.

89.  *as.*

     [As sa gar ti ya] II. 59. Asagartiya.

    [As su ra] I. 10-1. Athurá (Assyria).

     [Vi s ta as ba] I. 3. Vishtáspa.

In transcribing, I write *s* when there may be doubt whether this character or the next stands in the original, as in Vistaśba. The Babylonian  is the same character.

90. $\Sigma\Upsilon$ s.—This letter is found following the vowel i in

$\langle E \rangle \Sigma\Upsilon \Sigma \rightarrow \Upsilon \Upsilon \Sigma \Upsilon$ [Vi s ta as ba] I. 3. Vishtáspa.

$\Sigma\Upsilon \Sigma\Upsilon \rightarrow \Upsilon \Sigma\Upsilon$ [Chi s pi s] I. 4. Chishpish.

$\Upsilon \Sigma \langle E \rangle \Sigma\Upsilon \Upsilon$ [Va u vi s sa] II. 37. Vaumisa.

Also in Harauvatish, I. 14; Hakhámanish, I. 5; Fravartish, II. 50; Imanish, II. 6; Dadarshish, II. 21; Thaigarchish, II. 35; Bakhtarish, II. 85; Uvarazmish, vi. 18; Chichikhraish, II. 5; Kapishkanish, III. 24; Chitratakhma, II. 59; Vahyazdata, III. 1; Arakadrish, I. 27.

It follows a in

$\langle E \rangle \Sigma\Upsilon \Sigma\Upsilon \rightarrow \Upsilon \Sigma\Upsilon$ [Vi ya kan na s] II. 72. Viyakhna.

$\Upsilon \Sigma \Sigma\Upsilon \langle \Upsilon \rangle \Sigma\Upsilon \rightarrow \Upsilon \Sigma\Upsilon \Sigma\Upsilon$ [A s ši ya ti ya s]
II. 84. Atriyatiya.

$\Upsilon \Sigma \Sigma\Upsilon \Sigma\Upsilon \rightarrow \Upsilon \Sigma\Upsilon$ [A tu kan na s] II. 37. Persian lost.

$\Upsilon \Sigma \Sigma\Upsilon \langle \Upsilon \rangle \rightarrow \Upsilon$ [A s ši na] I. 58. Atrina.

$\Upsilon \Sigma \rightarrow \Upsilon \Sigma \langle E \rangle \Sigma\Upsilon$ [Va ra s vi s] vi. 18. Uvaraz-
mish.

It follows u in

$\Upsilon \Sigma \Upsilon \Sigma \Sigma\Upsilon$ [Va ku s] I. 26. Magush.

$\Upsilon \Sigma \Sigma\Upsilon \Upsilon \rightarrow \Sigma\Upsilon \Sigma\Upsilon$ [Ku un tar ru s] II. 50. Gudrush.

$\Upsilon \Sigma \Sigma\Upsilon \Sigma \rightarrow \Upsilon \Sigma \Sigma\Upsilon$ [Tha t ta ku s] I. 14. Thatagush.

And in Margush, II. 79; Daryavush, I. 1; Hidush, vi. 19-20; Autiyára, II. 45.

It comes as an initial, or after a terminal consonant, in

𐎧𐎶 𐎶𐎵 𐎧𐎶𐎵 [S par ta] I. 11, vi. 22. Saparda.

𐎧𐎶 𐎶𐎵𐎧 𐎶𐎵 𐎧𐎶𐎵𐎶 [S ku t ra] vi. 24. Skudra.

𐎧𐎶 𐎶𐎵𐎧 𐎧𐎶𐎵 𐎶𐎵 𐎧𐎶𐎵 𐎶𐎵 [S ku in ka ak ka] Det. K. Sakuka.

𐎧𐎶 𐎶𐎵 𐎧𐎶𐎵 𐎶𐎵 𐎧𐎶𐎵 𐎶𐎵𐎶𐎵𐎶𐎵 𐎧𐎶𐎵 [S sa in sa ak ri s] II. 4-5. Chichikhraish.

𐎶𐎵𐎶𐎵 𐎧𐎶𐎵 𐎧𐎶𐎵 𐎶𐎵𐎶𐎵 𐎧𐎶𐎵𐎶𐎵 [Va ak s tar ra] II. 10. Uvakhehatarā.

These examples demonstrate the purely consonantal value of the character. In pronouncing a word, it will rarely be required to give it a vowel; but when necessary, I make it *is*. The combination of two different characters with the sound of *s* is used to represent the Persian 𐎧𐎶 *tr*, as in the names of Chitratakhma, Atrina, Atriyatiya, and in the word 𐎧𐎶𐎵𐎶𐎵 𐎧𐎶𐎵 𐎶𐎵 Chitra, vi. 10. The Babylonian equivalent is made either 𐎧𐎶𐎵 or 𐎧𐎶𐎵.

91. 𐎶𐎵 𐎶𐎵 *sa*.

𐎶𐎵 𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵 [Sa t sa na] I. 72. Zazāna.

𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵𐎶𐎵𐎶𐎵𐎶𐎵 [Vu t sa ri ya] I. 11. Mudraya (*Heb.* Mizraim). Egypt.

𐎶𐎵𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵𐎶𐎵𐎶𐎵 [Par ru sa na na m] Paruzanánám.

The Babylonian character is identical in form and value.

92. 𐎶𐎵𐎶𐎵 *si*.

𐎧𐎶𐎵𐎶𐎵 𐎧𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵 [Ta tar si s] II. 21. Dadarshish.

𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵 [A ka van ni si ya] I. 2. Hakhá-manishiya.

𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵 𐎧𐎶𐎵𐎶𐎵 [Ku si ya] vi. 25. Kushiyá.

𐎶𐎵𐎶𐎵 𐎧𐎶𐎵𐎶𐎵 𐎶𐎵𐎶𐎵 [Si ya ti m] Shiyatim.

Also in Atrina, I. 58; and Atriyatiya, II. 84. The Babylonian 𐎶𐎵𐎶𐎵 has the same value.

93. *su*.—The only name found with this character in it is [Šu t ša]. II. 25. The equivalent is lost in the Persian, but the Babylonian has Šušu: the equivalence of the Babylonian character, which is found in several names, gives great probability to the value adopted.

94. *z*.—A few Ugrian analogies had almost decided me in giving this sound to the character in question, and the recently-received Inscription from Susa has confirmed the appropriation: the Magyar *nemze* means "race" or "family;" *viz* is "water," and the Zyrianian *yöz* means "people." These words are written in the Inscriptions , , and . The name of Artaxerxes is written in the Susa Inscription, and the Persian form of the name is known to be *Artakshatra*; the syllable *tra* is therefore made by , and we have already several instances of this sound being rendered by the letter *s* repeated (see Chitra, Atrina, &c.) The attribution is, after all, only probable. Finnish and Magyar scholars will decide whether further analogies can be found from the words a town, a way, the sea. The character is thus made in the Alwand Inscription. I do not know if any inference can be drawn from the word meaning "a tablet" in the French copy of the Van Inscription, N. 16: the word occurs twice; it is made in line 23, and in line 25; it is elsewhere always written .

95. *sen*.—I was at one time disposed to think this character equivalent to , from finding the word in II. 1, 7, in sentences of similar con-

¹ This word is written at Naksh-i-Rustam, line 23, . The variation may be accidental, for in other characters, such as *ar*, the quadruple wedges of Behistun are replaced by triplets at Naksh-i-Rustam. But the character under consideration is usually made in the inscription found there (see lines 43, 46, 47). This circumstance indicates an affinity of sound in the two characters.

Found also in the words Asagartiya, II. 59; Daryavush, I. 1; Autiyára, II. 45; Varkána, II. 68; Viyakhna, II. 72; Atriyatiya, II. 84; Ariya, vi. 11; Hakhámanishiya, I. 2; Arabáya, I. 11; Mudráya, I. 11; Kushiyá, vi. 25. This character is rarely made $\Xi\Xi\Upsilon$. The Babylonian form is $\Xi\Xi\Upsilon$.

99. $\Upsilon\Upsilon\langle$ *yu*.

$\Upsilon\Upsilon\langle$ $\Xi\Upsilon$ $\Xi\Upsilon\Upsilon$ $\Xi\Upsilon$ [Yu t ta na] II. 90. Utana.

No other direct evidence is found of the sound of the letter; and this is not conclusive as to the precise articulation; but a comparison of the different ways in which we find the Scythian equivalent for the Persian *Dahyaus*, a province, will show that the appropriation given must be correct: the word is usually written Υ $\Xi\Upsilon\Upsilon$ $\Upsilon\Upsilon$ $\Xi\Xi\Upsilon$ \langle $\Xi\Upsilon\Upsilon$ [Ta hi ya u s] I. 17, 25. Sometimes $\Xi\Upsilon\Upsilon$ is substituted for \langle , but in xv. 12, we find $\Upsilon\Upsilon\langle$ substituted for the combined group $\Xi\Xi\Upsilon$ \langle , which can hardly bear any other pronunciation than *yau* or *yu*. Compare also *yuttayut*, I. 70, and *yutlihut*, II. 53. The Babylonian $\Upsilon\langle\Upsilon$, which Colonel Rawlinson renders *khu*, is the same character, with a transposed wedge, and it is very likely that the value was not unlike.

100. $\Upsilon\Xi$ *ye*.—There is no authority for this sound: I have been induced to take the syllable *ye* as its representative from observing that in some of the languages allied to the Scythic the demonstrative pronouns differ from each other by a change in their vowels only, and in this language the pronoun *that* is $\Upsilon\Upsilon\langle$ *yu*. In the Ostiak, *that* and *this* are *toma* and *tema*; in Mordwin, *tovatas* and *tevotes*; in Finnish, *tuo* and *täma*: *yu* and *ye*, therefore, seemed not improbable equivalents for these pronouns. I have in N. 19 supposed that the Babylonian $\Upsilon\Xi$ to be the same as $\Upsilon\Xi$; if this be admitted here, we have *khi* for the value of $\Upsilon\Xi$, which is not unlikely; but there is as yet no means of deciding.

101. $\Xi\langle\Upsilon$ *yo*.—The only reason for taking this syllable is that "people," which is in Scythic $\Xi\langle\Upsilon$ $\Upsilon\Xi$, is *jöz* in Zyrianian: it may be therefore looked upon as an unknown sound.

Here follows a list of all the characters noticed, and their transcriptions as used in this memoir; about half the number given have been correctly valued before, either by Professor Westergaard or Dr. Hincks; and all are known, I believe, to Colonel Rawlinson. In the last column, I have put the letters *c* and *p* for "certain" and "probable," repeating the letter *c* when the degree of certainty is more decided. I understand this to be the case when there appears to be no reasonable doubt of the power of both vowel and consonant in the value given, and when there are several authorities for the sound. Where neither *p* nor *c* is set down, it will be understood that the sound stated is merely given as a makeshift for pronunciation.

THE ALPHABET.

No.	Form.	Sound.		No.	Form.	Sound.	
1		A	ccc	16		PO	P
2		I	c	17		KA	ccc
3		U	cc	18		GAU	ccc
4		E	p	19		GA	P
5		BA	ccc	20		KI	P
6		PA	cc	21		KU	ccc
7		FA	c	22		KAN	ccc
8		PI	ccc	23		KAR	cc
9		PU	ccc	24		GAR	cc
10		PAR	ccc	25		KAS	c
11		FAR	ccc	26		AK	ccc
12		PAT	c	27		IK	ccc
13		AP	c	28		UK	ccc
14		AF	p	29		KE	
15		PE	p	30		KO	

No.	Form.	Sound.		No.	Form.	Sound.	
31		KWE		55		VAR	CCC
32		TA	CCC	56		VAS	CC
33		TI	CCC	57		VACH	c
34		TU	c	58		M	CCC
35		TAK	c	59		VEN	
36		TAR	CC	60		MON	
37		TAS	c	61		NA	CCC
38		T	CCC	62		NI	CCC
39		TA	P	63		NY	c
40		TI	CC	64		NABU	c
41		TU	CC	65		AN	P
42		TAR	CC	66		IN	c
43		T	CC	67		UN	c
44		TE		68		NE	
45		TYE		69		NO	
46		THA	CC	70		NOS	
47		THU	CC	71		RA	CCC
48		HI	c	72		RI	CCC
49		HU	CC	73		RU	CC
50		HE		74		RAB	c
51		VA	CCC	75		RAK	CC
52		VI	CCC	76		RAS	c
53		VU	c	77		AR	CCC
54		VAN	c	78		R	CC

No.	Form.	Sound.		No.	Form.	Sound.	
79		RO		93		ʒU	c
80		RE		94		ʒ	p
81		LU	cc	95		SEN	
82		AL	c	96		CHI	ccc
83		EL	p	97		CHO	
84		SA	ccc	98		YA	ccc
85		SI	c	99		YU	cc
86		SU	cc	100		YE	
87		SAN	c	101		YO	
88		SAR	cc			PASSAN?	
89		AS	ccc			TIN?	
90		S	ccc			?	
91		ʒA	cc			?	
92		ʒI	ccc				

Some considerations, which will be mentioned in the Analysis of the Artaxerxes Inscription, induce me to propose, but with some doubt, the sound of *am* for the character (No. 45 of the Syllabarium), which I have there made *tys*. The resemblance in shape of the Babylonian character (No. 68 of Colonel Rawlinson's list) had suggested this reading before I had examined the Inscription alluded to; but I rejected it as unlikely. It has acquired a greater probability now, though perhaps not much; but it is too late to make the alteration in the alphabet.

It will appear from the incompleteness of the above developement of the Scythic syllabarium, that the phonology of the language must be left to more experienced scholars. That developement, so far as it is followed out, points to a close analogy with the language now spoken in Finland. The Finnish language, in the nature of its sounds

generally, in the almost total absence of distinction between surds and sonants, and the avoidance of clashing consonants, is quite in correspondence with the Scythic. The Magyars, the Laplanders, and in a great measure the Volga tribes, perhaps from the more powerful political influence of the Indo-Germanic people with whom they are in contact, or from a more extended intercourse with those nations, have acquired a greater facility in combining consonants, and in beginning syllables with sonants; or else, as a Finn would say, have lost the delicacy of ear, which in the purer state of their languages would instinctively teach them to avoid such uncongenial sounds. It is not very easy to predicate the ancient condition of any of these tongues. I know of nothing written in the Magyar earlier than the fifteenth century; and of the other Ugrian languages we have nothing above fifty or sixty years old, except perhaps the undeciphered monument of the fourteenth century in the church of Voshemsk, not far from the city of Yarensk, in Vologda, which is believed to be in the Zyrianian. The great Finnish heroic poem, "The Kalevala," may be of any age; but as it appears to have been brought down to us wholly by word of mouth, it has naturally varied, like all traditional poetry, with the varying forms of the language. All this makes it difficult to give a confident opinion as to the comparative likeness or unlikeness of either of these languages with the one we are considering; but it is probable on the whole that the Finnish scholar will be best able to grapple with the difficulties of Scythic phonology. The best thing I can do now is to arrange the characters which are more or less certainly known, in such a way as to shew the system, or want of system, which characterized their invention or selection. The chief use of such arrangement will be to shew what sounds are likely to exist in the language without characters yet known to represent them, and thus to aid investigators in finding values for the characters of whose pronunciation we are ignorant.

I will first state what might have been the theoretical idea of the syllabarium; and here the arbitrary distinction which has been made between *p*, *b*, and *f*, and that between *k* and *g*, must be ignored; not but that there was a difference in the sounds as well as forms of the characters which are distinguished by these consonants, but its nature is unknown, and it was as likely to be in the vowels as in the consonants, a distinction in fact between the broad and narrow vowels, combined perhaps with a difference in the consonants, as in Turkish, Mongol, and Manchu; the aspirate, which is quite uncertain, must also be disregarded. I think there were thirteen initial consonant sounds: *p*, *k*, *t*, *f*, *th*, *v*, *n*, *r*, *l*, *s*, *ch*, *y*; eleven of these may have been

final sounds, *th* and *y* being excluded; and that there were three vowels, *a*, *i*, and *u*. Each vowel might form a syllable alone, or followed by a terminal consonant, which would give 36 syllables, and each syllable might take any of the initial consonants, making altogether 504 possible syllables. The framers of the syllabarium certainly did not wish to devise characters for syllables having *i* or *u* between two consonants, because we find every such syllable made by two characters, as *nis*, *yut*, *sin*, *kus*, *rus*, *pir*, with very many others. This would withdraw 286 syllables from the syllabarium, leaving 218 possible syllables to be provided with characters. If the authors of the syllabarium ever intended to invent characters for all these syllables, they did not carry out the intention, for we find about 40 such syllables represented by two characters; we have for example *bak*, *bar*, *kap*, *thap*, *nas*, &c. &c., so written, and there is no reason to suppose that we have in the inscriptions all the syllables that could be thus represented. Thus, if every hypothetical syllable existed in the language, and all those which are not found written with two characters, had actually single characters to represent them, there would be something less than 180 characters; but as either supposition is very unlikely, the probability is that we have before us very nearly all the characters used. These I have set down at barely 105, of which perhaps 20 are of unknown values. For these 20 unknown characters we have syllables to seek; and although the undetermined syllables are five times more numerous than the characters we have to spare for them, we may reduce the number very considerably by attending to what we have seen to be the characteristic structure of the alphabet generally. We will see what syllables are not represented in our list: of simple sounds we want *thi*, *no*, *la*, *li*, *cha*, *chu*, *yi*; and all these, except perhaps the last, were likely to have existed in the language: if so, they must have had representatives, and most probably some of the 20 unvalued characters were these representatives. We have then 14 characters still to spare, and for these the most probable sounds may be selected out of the 90 or 100 possible which are left for choice. It does not seem probable that any more forms for terminal consonants are wanted; we have of these already a fair amount, and we know, from such syllables as *kat*, *put*, *tit*, *tut*, *kam*, *sam*, *tim*, *nim*, *sum*, that some at least of the final consonants which are represented in our alphabet by only one form each could follow any vowel indiscriminately. Nor are any of the syllables beginning and ending with the same sound likely to have single characters to represent them, because whenever such syllables occur in the remains we have, they are always made by two characters, as in *sas*, *nan*,

tat, &c. No other values remain then among the possible syllables than such as consist of two differing consonants with *a* between them, and which are not already found in the Inscriptions made by two characters. The whole possible number of these is about 40, and the following may be selected as probable; *nat*, *rat*, *tap*, *vap*, *sap*, *pam*, *tam*, *pan*, *tan*: these sounds were probably among those represented by our spare characters, and perhaps *pas* and *naz* may be added to the list. Those which occur only once or twice altogether would have stood for some of those sounds I have considered improbable. Of course, with the uncertainty which prevails throughout this scheme, and the arbitrary assumptions on which much of it is based, the numbers given above must be taken with a large allowance, and possibly the whole of this paragraph will be thought superfluous; but I believe it may save the future searcher some trouble.

I cannot conclude without expressing an opinion which I have rather ventured to admit with reluctance than to adopt with confidence, that the syllabarium was originally contrived for a Scythic language; the unchangeable roots, the agglutinative structure, and the simple syllabization of such tongues is so perfectly suited to such a mode of writing, while the Semitic and Indo-Germanic tongues cannot without the most awkward and unsystematic arrangements be represented by it, that this opinion is forced upon me, in the absence of evidence, and in opposition to all preconceived notions on the matter.

The Inscription at Behistun follows, the equivalent of each character being given separately, and the whole transcribed, line for line, as on the rock: the determinative perpendicular is shown by commencing the following syllable with a capital letter; the horizontal determinative is inserted in its proper form. As it is proposed to make the transcript represent the Inscription as nearly as may be, no attempt is made to separate the words. Wherever the characters on the paper cast are so faint as to be uncertain, the transcript is put in *italic* types. Restorations are placed between brackets.

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hi [ya u s] na Vī s
 Ta ri [ya] va u s Ko
 hi ak R sa m va T
 Chi [s pi] s T ta ri A
 ak [ka van ni] si ya ti ri
 ka vi [Ko fa] hi ak
 n [vas Ko vas] yu t ta sa
 s ta na] Ko vas Hu yu t
 s ye p po] Hu nī na ti
 Ba pi lu] fa hi ak As
 pa hi] ak I ya u
 t Sar ra] in kas pa hi ak
 ru pa vi] tha na hi ak
 Ta hi ya u] s hi ak
 a na] tas lu ba [vas] Hu
 pa yu t ta
 t tu ka] yu far ri r ku
 ta nī na Ta hi
 ta [s] [hi] ak Ta ri
 ta s ku s] Hu Ko vas ye
 o na an ri] ye p po Hu
 ka vi] Ni [van s yu] far
 an pu chi] ya Far ti ya
 [ri ya fa ik] ki po ri s
 ku t ta] Par san ik ki
 Ru ven ki] r Va ku s
 an mon] s an vi kan na
 ras sa ak ri Kan] pu chi
 a yu] far ri ik ki po
 . . Ko vas yu far ri
 . [hi] ak vas nī Kan pu
 u pa] p po Gau va t
 Ni] ka vi tas vas nī
 Va] ta pa hi ak ku t
 i pa na var] ri s
 n ki r Par sar] ra in
 s su nos vas
 ki m vas] Tas su nos r si
 hi ak Ak ka ri as ki
 ū u ra vas ta af ti ya
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. na X an na on [an mon] ş an ba ga ya ti s na
 ta ak ka Va ku [s r] af pi ya ku t ta
 ni s > Şi ik tu uk va ti s ye si > Ni s sa ya
 Hu e vi şu [va şa u vi in] ā u ra vas ta na
 hi ak Tu ri [ya va u s] Ko ka an ri Ko
 no ga ya Hu [ka ʔa va] passan ki ta tha p p po
 yu t ta p po [Gau va ʔ ta] ak ka Va ku s
 hi ak > Al ye ʃ [pa] . . . chi va p pi lu .
 Tas su [nos . . ka ʔa va] passan ki ta ku t
 au s p po ta [hi e] . . ta ye chi tu tha p
 a şa u vi in ā u [ra] vas ta na ye Hu yu t
 asan ki ta ye chi tu an ka p pu ka ta hi
 an va ʔ ta ak ka [Va ku s] > Al ye ʃ Ni ka vi
 ri ye p po Hu [ik ki var] yu t ta ak tha
 ya va u s Ko na an ri tha p Gau va ʔ
 far tu ra Uk ba ʔar ra an va Sa ak ri
 z Hu yu t ta va ra vas nĩ A far ti fa Hu
 ri s vas nĩ Ko vas yu far ri A far ti fa
 ye si Ba pi lu r ra A hi na hi ra Sa
 i r ti ras ka na [an ri] Hu Nabu ku tar ru
 fa var ri ta Ni ti t [pa al] yu far ri ik ki
 i lu fa pa yu far ri var ri s ^a hi ak
 far ʔi ik ki no ga ya A s şi na yu far
 pi ya hi ak Tu ri ya va u s Ko na
 ta ak ka na an ri Hu Nabu ku tar ru sar
 ye si a vi pa tha fa ti > Ti ik ra > Sen ri
 nos vas ka m ni ka p po po ke hi
 fa ba ā u ra vas [ta pi] ik tĩ Hu ta s şa
 nos p po Ni ti t [pa al] yu far ri na af pi
 ka ye chi tu sa par rak m vas yu t ta yu
 ra an ri vas nĩ [Hu] Ba pi lu po ri ya
 şa an ye si Hu fa ra ta sa ta va ta ak a
 ar ru sar Tas su nos i ta ka Hu ru tas ʃi
 vas yu t ta yu t ā u ra vas ta pi ik ti Hu ta
 ʔar ri na a vi [af pi] ya II [an] na an an mon ʃ
 t Tas su nos p po Ni ti t pa al na Hu af pi r si ik
 hi ak Tu ri ya u s Ko na an ri vas nĩ
 s ka . . . > Ba pi lu lu fa ba vas nĩ Hu
 Ba pi lu var ri ya ku t ta Ni ti t pa al yu
 af pi [ya] [hi ak]

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p pi Ta hi ya u
 As su ra hi ak Vu
 ku s hi ak Sa ak
 ya ye si S sa in
 r ta ak yu far ri A
 s Ko A far ti na va
 ki var fa ni fa Var
 pi s hi ak Ta
 ta pa ik ki i va ka
 ak s tar ra na ni va
 var pa fa ti fa yu
 hi ak Va ta pa Hu ta
 ye si Par sar ki r Hu
 ta s Tas su nos Va
 nos i ta ka Va ta pa
 lik ki a vi sa par rak
 s ta pi ik ti Hu ta
 r si ik ki af pi s XX
 ni Tas su nos p po Hu
 ik ki a vi sa ti s
 an ri Ta tar si s
 r yu t tu ye chi tu
 an ka vas ni Ta tar si s
 ba Ta tar si s r va
 - Yu va ni s - Su t sa
 vas ta na Tas su nos
 an thu r va r na pi r ka
 r ra p ba Ta tar si s
 - Ar vi ni ya fa ik
 ra vas ta na Tas su
 non ş an thu r va r na
 ru r sa r ra fa ba Ta
 va ye si Ar vi ni ya fa
 ra vas ta na Tas su
 tha hi kar ri chi s na
 n t tas Hu un şa ti s
 an ri Va u vi s
 a ik ki ta ven ye
 af pi s van ka vas ni
 r sa r ra fa ba Va

as ni > T' chi tu ye si > As su ra an a vi sa par
 in ā u ra va s ta na Tas su nos p po Hu
 an an mon ş an a na va ak kas na pi r ka ye
 Pa ti fa far ru r sa r ra fa ba Va u vi s
 ti in > A u ti ya ru s ye si a vi sa par rak m
 vas ta na Tas su nos p po Hu nī na Tas su
 i ta va ye chi tu sa par rak m vas yu t ta
 Hu Va ta pa ik ki ş i in ni ga t hi ak
 ga t ta Va ta pa ik ki po ri ya tha p Va
 a pa ik ki a vi Far ru var ti s yu far ri ş i
 k m vas yu t ti van ra vas nī sa par rak m vas yu
 na a vi Tas su nos p po Far ru var ti s na
 ka ye chi tu sa par rak m vas yu t ti bu t vas nī
 > Rak ka an tha ak vas nī Hu Tas su nos vas
 hi ak ti t vas hi ak pe ri vach chi ya re ta
 a fa ta r chi ya s hi ak vas nī > Ak va ta na t
 po fa pi yu pi pa > Ak va ta na > Af var ri
 hi ak Ta ri ya va u s Ko na an ri Ru
 k ki var pa fa ras ka Tas su nos pa ye chi tu p
 an va ra vas nī Hu Tas su nos Par san hi ak
 ru ri yu far ri R sa r ra p pi nī r yu t ta
 ri van pi yu pi pa af pi s van ka vas nī Tak
 va ye ta s ā u ra vas ta pi ik ti Hu ta s
 nos p po Pa ti fa pa r si ik ki af pi s ku t ta
 s hi ak pe ri vach chi re ta ki tu va > Chi
 ya s vas ni > Ar pa ra ye si a vi Hu t ru
 ye Hu Va ta pa ik ki yu t ta hi
 ni ya fa Hu ik ki var pa fa ti fa ba Far ru
 vas sen ri r yu far ri Tas su nos r vach
 vi ni i ta ka tha ak > Af ş > Vi s ba u ş a ti s
 as ta pi ik ti Hu ta s ş a u vi in ā u ra vas ta na Vi
 n ş an vi ya kan na s na pi r ka ye chi tu sa par
 u Tas su nos Par san > Rak ka an var Vi s ta
 ik ki r po ri fa vas nī Vi s ta as ba Tas su nos
 sa par rak m vas yu t ta s ā u ra vas ta pi ik ti Hu
 af pi s r si ik ki I an na an an mon ş an gar
 Ta ri ya va u s Ko na an ri vas nī Ta hi ya hu
 ak Ta ri ya va u s Ko na an ri Ta hi ya
 i r Far ra ta ye si Var ku s r ra yu far ri
 Hu Lu ba ru ri Sa ak sa ba va na vas > Ba

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Hu nĩ na in uĩ ti ri van pi
 ta ta sã u ra vas ta pi ik ti
 si ik ki XXIII an na an
 Ta ri ya va u s Ko na

si *I hu* ti ya s ye si
 ti ri s na an ri Hu Far ti
 pa Hu ik ki var pa fa ti
 ri ya va u s Ko na an ri
 fa yu pi pa hi ak Tas su
 ar sar ki r Hu Lu ba ru ri
 pa ik ki Hu ki ik hi ak
 ri ik - Afş - Rak ka an
 ya tas su nos i ta ka
 s yu t ta sã u ra vas ta
 Vi s ta t ta na af pi s r
 ta s hi ak vas nĩ Vi s ta t
 ar sa rak Tas su nos yu
 sa par rak m vas yu t ta
 k Tas su nos p po Vi s
 m vas yu t ta s hi ak ku t
 fa pi var ri s hi
 an ni ta vi yu po fa pi i
 Hu Par san ik ki yu
 ri Hu Far ti ya yu far
 i va na ye si Par sar
 p ti ri s vi ta s Vi va na
 nĩ Tas su nos yu pi pa -
 - Ka p pi s sa ka ni s
 a s sa u vi in ã u ra vas
 ş an a na va ak kas na pi
 rrak m vas Vi va nai [ta]
 ra vas ta na Tas su nos
 na pi r ka ye chitusa par
 t ta r yu t tas ti yu far
 ra u va ti s R va el
 ven yu far ri ak ka Tas
 ca u ri s sa p pi in af pi
 ta fa ye Hu - Ar ra u
 k Va ta pa ik ki sen ni

ka ye si Ar vi ni ya r ki r Af ti ta Sa ak ri
i tuti ras ka Tas su nos pa pti ris na an ri Hu Nabu
u ik ki var pa fa ti fa ba A rak ka yu far ri ik
ri [yu] t tas hi ak vas nĩ Hu Tas su nos Ba pi
[far ri Hu] R sa r ra p pi nĩ r yu t ta ye
ri van pi yu pi pa af pi s van ka hi ak vas nĩ [Vi]
ik ti Hu ta s sa u vi in ã u ra vas ta na Vi in
an na an an mon ş an var ka şa na s na pi r ka ye
ra var ri ik hi ak Yo ş p po a tar ri van ni ta vi
k ka yu far ri hi ak Yo ş ak ka pa a tar ri
lu fa hi ak Ta ri ya va u s Ko na an
s Ko na an ri ye p po Hu yu t ta > Pa al ki
Pa t yu t ta şa u vi in ã u ra vas ta na Hu p pi in
si Va ku s ti ras ka na an ri Hu Far ti
A far . ra yu far ri A far ti fa p pi in pa fa tas
si Ba pi lu r ki r ti ras ka na an ri Hu Nabu ku
c Var ti ya ye si Par sar ki r ti ras ka na
fa tas hi ak Far ru var ti s ye si Va ta ti
ra yu far ri Va ta pa p in pa fa tas hi ak [Chi]
ut ta Ni van ş Va ak s tar ra na va ra yu far ri
ti ras ka na an ri Ko vas Var ku s pa na [Hu]
si Par sar ra ti ras ka na an ri Hu Far ti
ak ka ye si Ar vi ni ya ra ti ras ka na an ri
pi lu fa p in pa fa tas hi ak Ta
t ye a ti va va u ri ya hi ak
pa fa ti fa pi p pi ti t ki vas p pi in pa
u ra vas ta kar pi Hu nĩ na va p pi in
hi ak Ta ri ya va u s Ko na an ri Ni
s ga s Yo ş r ra ti ta in ra yu far ri tar
ar va as tu hi ak Ta ri ya va u s
l ki va yu t ta hi ak Ni Ak ka vas s ş in > Ti
sen pa u ri s hi ni ti t ki m vas re van
vas ta ra tha p p po ye pe ri in nĩ ti t ki
na an ri şa u vi iu ã u ra vas ta na ta hi ki ta
u pa in ras ki m vas hi ni Ak ka > Ti pi ye vas s
ak yu far ri in nĩ u ri in ra ti t ki vas re van
pi ku s sen pa fa yu pi pa na ye ni fa ba ak in nĩ
hi ak Ta ri ya va u s Ko na an ri am Ni u ri s
al ne ye in ni şar ti in ti Tas su nos pin ti ri in ti ã u ra
ka tak ti nĩ hi ak an ka sa rak lu al ne ye şar ti in

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 45
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 70

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[illegible]

The image displays a page from the Voynich manuscript, featuring two columns of text. Each column contains five lines of script. The symbols used are a mix of straight lines, curves, and dots, creating a complex and unfamiliar visual language. The parchment is aged, with visible texture and some discoloration. The text is written in a consistent, cursive-like style across the entire page.

ti hi ak Ta ri ya va u
 na p Ar ri ya na m pi ik
 pa in ras ki vas ā u ra vas
 ka a m hi ak in nī ti ras
 in nī Fa ba ak ra in nī S
 r ri t̃ar tu ka ir ku uk ti
 t ta hi ak Ta ri
 ti hi ak hi ni Ak kappat
 i ya in ti p po Hu ri lu
 ka > Ti pi ye chi ya in
 ta Ni in ka nī s nī hi
 u ra vas ta a t̃sa s nī hi
 k kut ta Ni vañ nī hini
 u s Ko na an ri Vi in
 ra hi ak Gaupar vaye si
 pu uk sa yesi Ta t̃tu van
 yu fa ku s Hu Gau va
 P pi Hu ta hu van lu

1. Ko as . hi ya hi e

2. a na . Ik si r sa na

3. a . in na ak ga

4. ā var vas ta na

5. ar . pi ta . ak ka

k [ri]

No. 5.—O OF WESTERGAARD
AND LASSEN.

G.
an tak va
an ri
ak star
As an
pa Hu
ra

H.
ap (!)
k na an
ti ya
Hu Ko
ta va ra

L.
ak k ti ras ka
ri Hu Naba
tar Nab
na Ko vas
fa pa Hu
ta va ra

1. An na ap an r sa r ra ā
2. u ra vas ta ak ka ye - Vu
3. ru an pa sta ak ka an ki
4. ik ka ya pa pa sta ak ka
5. Yo ē r ra r pa s ta
6. ak ka gi ya ti s pa s ta
7. Yo ē r ra ma ak ka
8. Ta ri ya va u s Ko r
9. ya t tas ta ki r R si
10. ki fa na Ko ki r R
11. si ki fa na far ra va ta
12. ra m Hu Ta ri ya va
13. u s Ko r sa r ra Ko
14. Ko fa r ra Ko Ta
15. hi ya s pa na Par ru sa
16. na na m Ko - Vu ru
17. un ye ak ka va a t sa ik
18. ka far na ta nī ka Vi
19. s ta as ka Sa ak ri
20. A ak ka van ni gi ya

L.
ri ya va u s Ko na an ri na u
ā u ra vas ta na Hu - Ti pi vas
hi e ik ki ya t ta ar ri ya va
na sa s an in al sen ri ku t ta - A ta
k ka ku t ta - Su ē ak ka ku t ta
u ē s ku t ta e fa pi ya t ta ku
na ri la ik ku t ta Hu ti
ho pa fa ra ka vas nī - Ti pi am
ni Ta hi ya hu s var ri ta a ti
Hu no ga ya Tas an na pa tha pi s

L. LINES 61. 62. 63.

.....
.....
.....

N^o 5 O. of Westergaard.


六平 六平

中	一	十	二	三
四	五	六	七	八
九	十	十一	十二	十三
十四	十五	十六	十七	十八
十九	二十	二十一	二十二	二十三

一、
 二、
 三、
 四、
 五、
 六、
 七、
 八、
 九、
 十、

上平聲
 下平聲
 上入聲
 下入聲

到十時許，
 水才退去。

10  10

一、二、三、四、五、六、七、八、九、十、十一、十二、十三、十四、十五、十六、十七、十八、十九、二十、二十一、二十二、二十三、二十四、二十五、二十六、二十七、二十八、二十九、三十、三十一、三十二、三十三、三十四、三十五、三十六、三十七、三十八、三十九、四十、四十一、四十二、四十三、四十四、四十五、四十六、四十七、四十八、四十九、五十、五十一、五十二、五十三、五十四、五十五、五十六、五十七、五十八、五十九、六十、六十一、六十二、六十三、六十四、六十五、六十六、六十七、六十八、六十九、七十、七十一、七十二、七十三、七十四、七十五、七十六、七十七、七十八、七十九、八十、八十一、八十二、八十三、八十四、八十五、八十六、八十七、八十八、八十九、九十、九十一、九十二、九十三、九十四、九十五、九十六、九十七、九十八、九十九、一百。

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[illegible]

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GRAMMAR.

IN approaching the grammar of a language whose analogies connect it with a class of tongues but little studied by philologists, a few preliminary observations on the structure of these tongues may be useful.

The writer himself is but very imperfectly acquainted with them: he had merely glanced at their most obvious peculiarities before he undertook the investigation of the so-called Median inscriptions; and since then he has acquired only such an additional insight into their structure as was absolutely necessary for his object, which was simply to make known the existing materials, and to point out the route which he thinks ought to be followed in examining them, so that those who were already acquainted with that route, might be induced to continue the investigation. The class of languages to which he alludes has been called the Volga-Finnish, or Ugro-Tartarian; and it comprehends the Mordwin, Zyrianian, Cheremiss, Wotiak, and Permian tongues; the Ostiak and the Magyar may be added to the list. One only of these can boast of any degree of cultivation, all the others being spoken by small and generally wandering tribes who are wholly illiterate, and whose languages would be unknown beyond their own little circle but for the labours of one or two learned Finlanders, and the perseverance of Christian missionaries who have translated portions of the New Testament for the use of these half-barbarous tribes. Of the languages which the writer conceives to have most analogies with that of the inscriptions, he has not been able to obtain even a vocabulary; but good grammars exist in which their structure is well and scientifically made known. The consequence of this is, that such analogies as he may be able to show are almost all grammatical only; he is however of opinion that these will be found sufficient to induce Tartar scholars to carry the investigation further than he is able to do.

The following sketch of two or three of the grammatical peculiarities of these tongues may be usefully read by those who wish to know something of the language of the inscriptions:—

Nouns have no gender, and all their modifications are effected by additions at the end. These modifications are more numerous than in the Indo-Germanic languages, there being, for example, different forms for the dative case (*i.e.* *to* or *for* after the verbs of addressing, giving, &c.), and what the Finnish grammarians call the allative case (*e.g.*

falling to the ground), and the illative case (*e.g.* coming into the house). The form of the nominative case is different from that of the so-called predicative case (*e.g.* he was a king), and factive case (he became a king). Some of the languages, as Mordwinian, have a temporal case, with a peculiar affix for such expressions as "at night," "in the winter," &c. The plural in all the languages is made by the addition of a syllable, and the case-ending is suffixed to the latter syllable.

Adjectives do not appear to differ from substantives in their form.

Pronouns are declined much like substantives, though there is generally some difference or irregularity, and the possessive pronoun is most commonly added as a suffix to a noun; as in Ostiak, from *ima*, "a wife," are formed, *imem*, "my wife," *imen*, "thy wife," *imet*, "his wife;" and these compound words are varied in their cases like the original noun.

Verbs have a paucity of tenses, but a variety of modifications, such as causatives, reflectives, inchoatives, negatives, definites, and others unknown, or only exceptionally known, to the Indo-Germanic tongues. Two examples follow: one of a Zyrianian verb, in the present tense; and the other of a Mordwinian past tense:—

ZYRIANIAN.

Verma	I am able.
Verman	Thou art able.
Vermas	He is able.
Vermam	We are able.
Vermannyd	You are able.
Vermasny	They are able.

MORDWINIAN.

Sodyn	I knew.
Sodyt	Thou knewest.
Sodas	He knew.
Sodynek	We knew.
Sodyde	Ye knew.
Sodast	They knew.

These few notes will be of service in enabling the reader to follow more readily the attempt to investigate Scythic grammar. Analogies will be pointed out as the cases occur.²

¹ *E.g.*, *vä-ne*, "in the night;" *tel-nä*, "in the winter. See Gabelentz, p. 245. The Turkish language has traces of such case-ending, as *yasın*, "in the summer;" *qyshın*, "in the winter;" *eyylän*, "at midday."

² Works on Tartar and Ugrian languages:—

Versuch über die Tatarischen Sprachen, von Dr. Wilhelm Schott. Berlin, 1836.

De Affixis Personalibus Linguarum Altaicarum Dissertatio. Conscriptit Dr. M. Alexander Castrén. Helsingfors, 1850.

Versuch einer mordwinischen Grammatik, von H. C. v. d. Gabelentz. In the Zeitschrift für die Kunde des Morgenlandes. Göttingen, 1839.

SUBSTANTIVES.

All substantives form their genitives by the addition of the syllable *na*; as *Afartī-na*, "of Susiana," II. 6; *Ko-na*, "of the king," III. 23; *Auramasta-na*, "of Ormazd," *passim*.

This genitive is analogous to the same case in most of the Tartar languages, including the Turkish and Mongol, in so far as they contain the consonant *n*, though not followed by a vowel: the Mordwin has *loman-en*, "of man;" the Cheremiss, *erga-n*, "of a son," &c. The Turkish and Mongol forms are well known. Several of the Indian languages have the genitive *na*, as the Karnataka and the Ghondi; the Brahui has the same form.

The only irregularities met with are *Hu-ni-na*, "of me," from *Hu*, "I," and *-inna*, generally instead of *na*, after the plural termination *fa*, as *Kofa-inna*, "of kings," I. 1. In the Artaxerxes Inscription, *fa* follows *inna*; and we have *Ko Ko-fa-irra*, "King of Kings," in v. 13-4.

The genitive usually comes after the noun connected with it; as *Ko Tahiyaus-na*, "king of the province," I. 1; *Ko Afartī-na*, "King of Susiana," II. 6; *šauvin Auramasta-na*, "by favour of Ormazd." Sometimes *appo* is interposed, as *Tassunos appo Fruvartis-na*, "the army of Fravartish," II. 52: the word *appo* is a relative pronoun, which becomes virtually a definite article, like the Greek *ὁς*, and lower Latin *qui*: this is very unlike the practice of a Tartar tongue, and is probably imitated from the Persian original, where the relative *hya* has become really a definite article. See the expression *Gaumata hya Magush*, "Gomates the Magian."

In a few expressions the genitive comes first, and is then unaccompanied by the termination *na*, as in *Kuras sakri*, "Cyrus' son," I. 39; *Vistasba attari*, "Hystaspes' father," I. 3. This is in accordance with Volga-Finnish usage: we find in Cheremiss, *David erga*, "David's son," though *erga Daviden*, "son of David," in the more usual construction. The word *sakri*, "a son," always comes after its regimen, forming, I think, such a compound as the Greek *Pelides* and *Tydides*,

Elementa Grammatices Tcheremissae. Conscripuit Dr. M. A. Castrén. Kuopio, 1845.

Versuch einer Grammatik der syrjischen Sprache, von F. J. Wiedemann. Reval, 1847.

Versuch einer Grammatik der tcheremissischen Sprache, von F. J. Wiedemann. Reval, 1847.

Versuch einer ostjakischen Sprachlehre, von Dr. M. A. Castrén. St. Petersburg, 1849.

Grammatik der wotjakischen Sprache, &c., von F. J. Wiedemann. Reval, 1851.

or the Russian Paulovich; while *tar*, its equivalent, is always in the usual position; as *tar Kuras-na*, "son of Cyrus," III. 58, like the Mordwin *tsūra loman-en*, "son of man." The transposition is, I think, confined to the case of kindred, and to the pronoun *Hu*, used as a possessive. When two substantives are in apposition in the genitive case, the second only takes the termination, as *Tariyavaus Ko-na*, "of Darius (the) king," III. 23. This is, however, not the case in the Artaxerxes Inscription. The genitive is, in one instance at least, used as the agent of a passive verb, as *appo Hu-ni-na yuttak*, "what was done by me," III. 71.

One of the dative cases is made by *pa*: examples are, *Tassunos-pa*, "[he said] to the people," I. 60, II. 6, 10, 59, &c.; *Bapilu-pa-fa*, "to the Babylonians," III. 40. It appears to be used instead of *na*, in I. 57, where we find *Ko-vas Afarti-pa Hu yutta-vara*, "I am king of Susiana." See also line 62.

The preceding particle appears to be regularly used in one connection only, with the verb "to say;" but *ikki* or *ikka*,¹ which seem to be indiscriminately used, is found under several conditions: it follows the name of a place, governed by a verb of motion, in I. 24, 63; II. 37, 40, 48, 49, and elsewhere—*Mata-pa-ikki poriya*, "I went to Media," II. 49, is an instance; it follows pronouns under the same conditions in I. 29, 61, 64; II. 12, &c., as *Hu-ikki nogaik*, "he was brought to me," I. 64; it shows also rest in a place, as *Arminiya-fa-ikki şatis*, "he remained in Armenia," II. 48. See more examples in I. 25, 26, 44; II. 5, 12, 20. *Ikki* also makes an adverb *irsikki*, "greatly," of the adjective *irsa*, "great," which may be connected with the Magyar *erős* and the Ostiak *ar*.

This particle is allied to the Magyar *nek*, the Dekkan *yukka*, and to the Tartar-Turkish *ga*, *ke* (see Schmidt, p. 55). It is almost certainly the Mordwin so-called adessive, in such phrases as *mastor-ga*, "on the earth;" *ked-ga*, "in the hand;" *kenksh-ka*, "through the door," &c.

Mar denotes "from" and "by," as *Bapilu-mar*, "from Babylon," II. 49; *avi-mar*, "from thence," II. 55; *Rakkan-mar*, "from Rhages," II. 73. It is sometimes combined with *ikki*, as in *Kanpuchiya-ikki-mar*, "from Cambyeses," I. 29; and it is always so combined with *Hu*, making *Hu-ikki-mar*, "from me," I. 5, 8; II. 7, 11, 59, 68. We have *Nimanş Nikavi ikki-mar*, "from our family," I. 46. It forms the agent

¹ These may be more alike in sound than here represented; the syllable I have called *ki* is not found in any proper name, and the vowel is inserted merely on conjecture; *ikki* is much more frequent than *ikka*.

of a passive in I. 19—*appo anka Hu-ikki-mar tirikka*, “whatever was said by me.” In the Nakhsh-i-Rustam Inscription we find *ikka-mar*, as *Parsan-ikka-mar*, “from Persia,” line 14; *appo Hu-ikka-mar ap-torrika*, “what was said to them by me,” line 15. *Mar*, or *var*, is probably connected with the Mordwin particle: see *ninze maro* and *nize marto*, “from his wife.”—Gabelentz, pp. 389, 415.

Va implies “in.” See the following examples:—

Tipi ye va riluik	Written in this tablet, III. 67.
Tipi ye va inni riluik	Not written in this tablet, III. 70.
Tatarşis ir-va şinnifa	They went against Dardases, II. 24, 29.
Barsa ye va	In this Persepolis, xv. 13.
Apin hiş-va puttana	I drove them into the water, (?) I. 77.
Hiş ye va sathak	In this water they were drowned, (?) I. 77.
Atrur-va	On the cross, II. 57, 66.
Chifa Hu-nina va rabbaka	He was chained in my palace, II. 56, 66.

This postposition appears to be retained in Mordwin, forming the adessive case after a vowel, as *kudo-va*, “in the house;” *pando-va*, “on the mountain.”

Ativa, “in” or “among,” as *Tahiyaus ye ativa*, “in these provinces,” I. 17; *Tahiyaus ativa*, “in the province,” I. 25: see also I. 26; III. 60. The Persian equivalent is sometimes *atara*, as in I. 21; sometimes a locative, as in lines 34 and 35. The word clearly includes the particle *va*.

We now come to a particle which appears to subserve a variety of uses; it is that which we render *vas* or *mas*. This particle forms the predicative and factive cases, it acts as a definite article, probably as an accusative case also, and forms derivative substantives; and in all these uses it has its allied particle of similar etymology in one or more of the Ugrian tongues.

1°. As a predicative or factive, it follows the substantive *Ko* very frequently, as *Hu Ko-vas appini gutta*, “I was appointed king,” I. 10; *Ko-vas yufri guttäs*, “he became king,” II. 12; it is also found with other nouns, as *Saksabavana-vas Bakşis guttäs*, “he was satrap of Bactria,” II. 80. See also I. 7, 45, 57, 58; II. 51; III. 55, 56. The only case where the particle *vas* is omitted after *Ko* used as a factive is in II. 80. In this signification *vas* appears allied to the Cheremiss *esh*, as in Mark x. 8, *lit kogonëk ik kâp-esh*, “they shall become one body;” and in John ix. 32, *kûda Christôs-esh shepliâ tydam*, “who considered him to be Christ.” The same case is made in Zyrianian by *ös*, as, Matt. v. 36, *yedjid-ös libo syöd-ös kernî*, “to make it black or white.” In Mordwin, this case is made by *ks*.

2°. Less often, and less certainly, *vas* appears to have the effect of a definite article, or else it forms the accusative. A mutilated example is found in I. 67, where we read *Hu Tassunos-vas, ka.....* "I the people." A better instance is in II. 54, *Hu Tassunos-vas mi tavon*, "I sent out my people." In the following line we find *Hu yesim-vas, hiak tit-vas, hiak peri vachchiya*, "I cut off the nose, and tongue, and ears," where the omission of *vas* after *peri* shows some variation of usage in the plural number. If in the last example we prefer to consider this particle as a representative of the pronoun "his," we have Ugrian analogy to support the supposition.¹

The cognate forms, which support the above views, are these: in Mordwin, *s* forms a definite article, as *loman-s*, "the man," p. 245; in Zyrianian *ös* and *es* make the accusative case; in Mordwin *zo* makes the possessive "his," as *kede-zo*, "his hand."

In *saprakimmas*, "the battle," and *titkimmas*, "falsehood," which so frequently occur, the final *mas* may be the definite article, or perhaps, the word may come under the form mentioned in the next paragraph.

3°. *Vas* forms a derivative substantive, as *Kovas*, "kingdom," from *Ko*, "king." This word occurs very frequently in the inscriptions (see I. 7, 9, 20, 21, 30, 45, 46). The Cheremiss language uses the termination *mask* in the same way, making (*e.g.*) *kecha-mask*, "a sun-blind," from *kecha*, "the sun;" *idrämash*, "a woman," from *idyr*, "a girl." The Zyrianian uses *ös* for this purpose, as *purtös*, "a sheath," from *purt*, "a sword."

The termination *ra* has clearly the force of an indefinite article, and this value is made conspicuous by a comparison of III. 52 and 57, where, in passages precisely similar as to sense, "a Persian" is rendered by *Parsar-kir* in the first, and *Parsar-ra* in the second instance; it will be shown that *kir* is the numeral "one." Sometimes *irra* is used instead of *ra*. The following examples are found in the Inscription:—

Parsar-ra	A Persian, II. 57, 90, 91, 92.
Arminiya-ra	An Armenian, III. 58.
Afartu-ra	A Susian, I. 56; III. 50.
Asagartiya-ra	A Sagartian, III. 55.

¹ See also Castrén, *De Affixis personalibus, &c.*: "Præcipue tertie personæ affixum compluribus in linguis cognatis, ut videtur ad nativam suam indolem exuendam, articuliue definiti, quo hæ lingue generatim carent, vim sensim suscipiendam nititur," page 11.

Bapilu-irra	A Babylonian, I. 59.
Markus-irra	A Margian, III. 56.
Yoş-irra tişain-ra	Any man who is false, III. 64.
Yoş-irra tiras-ra	Any one who is a liar, III. 83.

In II. 79, we have *Markus-irra* as a plural. It would appear as though *irra* were required after any syllable not closing with *a* or *r*, which would render the last syllable of *Afartu* doubtful. *Irsarra*, "a leader," or simply "great," is probably the same form. *Ko-fa-irra*, in v. 14, is a genitive case, put in the place of the more usual form *Ko-fa-inna*. In these cases *ra* is perhaps the same particle which will be shown in the section of verbs to make a verb indefinite or contingent. The numeral *kir*, preceded by the sound of *r*, is found in the following instances: *Parsar-kir*, "a Persian," II. 13, 38; III. 52; *Arminiya-rkir*, "an Armenian," II. 22, 36; *Bapilu-rkir*, "a Babylonian," III. 51.

The plural number is formed by adding *pa* or *fa*, but these particles are not used indiscriminately; *fa* follows a syllable commencing with a liquid or semi-vowel, and *pa* one beginning with a surd or sonant. We have thus *Arminiya-fa*, *Parthuva-fa*, *Bapilu-fa*, and *Suktas-pa*, *Katbatukas-pa*, *Markus-pa*. In the inscription at Nakhsh-i-Rustam, we find *ap* used instead of *pa* or *fa*. *Ko* is followed by *fa* (see I. 1, 7, 8.), which might show that *ko* is not the sound of this word. I have thought sometimes of suggesting *sar* (as allied to the Hebrew שר and Latin Cæsar) or *sak*, as part of the names of Arsaces and Valarsaces, which might have been written 𐎠𐎼𐎫𐎡𐎹 𐎠𐎼𐎫𐎡𐎹 𐎠𐎼𐎫𐎡𐎹 and 𐎠𐎼𐎫𐎡𐎹 𐎠𐎼𐎫𐎡𐎹 𐎠𐎼𐎫𐎡𐎹, and read *ars-sak*, "great king," and *val-ars-sak*, "very great king," and the values of the syllables *val* and *ars* would suit the etymology; but as the character is used in no other word, any change would be purely a guess. *Tahiyaus*, "a province," is used at Behistun as a plural, without the pluralizing particle (see Col. II. 1, &c.); but in the smaller inscriptions, we find *Tahiyus-pa-na*, "of the provinces;" the final *s* perhaps induces the use of *pa*, as in *Visbaşanas-pa-na*, ii. 3-4. *Tusarinos* and *Yoş* appear to be always plural. "The gods" is rendered *anappipa* in xvii. 14, and elsewhere.

The plural takes the case-endings after *pa* or *fa*, as *Ko-fa-inna*, "of the kings," I. 1; *Bapilu-fa-pa*, "to the Babylonians," I. 62; *Mata-pa-ikki*, "to the Medians," &c. But the Artaxerxes Inscription, as stated before, forms an exception.

The adjective takes the declensional terminations when in connection with a plural substantive, as *Talni-fa ariki-fa*, "faithful horsemen," I. 78; II. 54; *Yoş ariki-fa*, "faithful men," I. 42; *Tassunos Mata-pa*, "Median people," II. 11; *Ko Tahihus-pa-na Irsikki-fa-inna Tanas-pa-na*, "king of the many-peopled provinces," xvii. 6-7, which is made *Ko Tuhihus-pa vissa-tanas-pa-na* in vi. 8.

Adjectives do not appear to differ from substantives. We find no instance of the comparative degree, and the superlative is implied only, as more commonly in the Ugrian languages; an example is found at the beginning of xi. and xvi., *irsarra annappi-pa-na*, "greatest of the gods."

PRONOUNS.

PERSONAL.

The pronoun of the first person singular is *Hu*, always preceded by the perpendicular line; in the genitive case it is connected with the case-ending by the syllable *nî*, making *Hu-nî-na*. This word is used for the dative in I. 16, *Hu-nî-na kutis*, "they brought to me." *Hu-ikki*, "to me," and *Hu-ikkimar*, "from me," are constantly found. We have *Hun*, as an oblique case in II. 36, *Hun şatis*, "he expected me," or "waited for me;" and in xvii. 11 and vi. 42, *auravasta Hun nigas-nî*, "may Ormazd protect me;" in xv. 17, *Hu* is curiously separated from *un* by the word *auravasta*. The dative is expressed by the simple *Hu* in the expression *Kovas Hu şunis*, "he gave me the kingdom," in I. 9, 20, and 45. In the Artaxerxes Inscription *Yu* is used instead of *Hu*.

The plural "we" is *Niku*: see I. 8, *Niku Kofa hut*, "we are kings;" I. 5, *Niku Nivans Akkavannişiya tirivaniun*, "we are called the Achæmenian family."

The second personal pronoun is made by *Nî*, as in the following examples:—

Nî, Ko Akka vasişşin Thou, king, who hereafter, III. 63-4.

Nî, Akka vasişşin Thou who hereafter, III. 66.

Nî, uris appo Hu yutta.... Thou, know that I have done, III. 73-4.

In the same manner that *Hu* takes the accusative signification by adding *un*, so does *Nî* take *in*, making *Nin*: as *Nin appis-nî*, "may he slay thee," III. 76, 88, a tautology common to several languages. The similar expression *Ninkanis-nî*, "may he befriend thee," in III. 75, 86, is not so clear; because the phrase *hini inkanninti*, in III. 83,

shews that the verb is *inkanī*, notwithstanding the difference of orthography. I think the repetition of *n* was felt to be unnecessary, as in the English can't for cannot.

The plural "you" is not found; in the Nakhsh-i-Rustam Inscription, where we should expect this pronoun to occur in the address to the Persians, the singular number is used, both in Persian and in Scythic. This is accounted for by Colonel Rawlinson, with much probability, on the supposition that Darius "addressed the Persian race collectively, and used the singular number in token of their inferiority to himself." See his Memoir, p. 310.

The pronouns *Hu* and *Ni* have each a secondary form, which is used somewhat like an enclitic, in the same way as the pronominal personal and possessive suffixes are employed in *all* the Tartar tongues: these forms are *mi* and *nī*. The first is identical with that of all the languages compared, the Finnish alone softening the *m* to *n*; the second is found only in Ostiak and Ottoman Turkish, the Ugrian tongues generally retaining only *d* or *t*. It appears that the original sound was *nk*, still retained in Tartar-Turkish, or *nt*, as we shall find in the Scythic verbal termination, which is also retained in the *nd* of several Samoyede dialects, as the Samoyed-Ostiak, Juracic, &c. See Castrén, p. 28.

Examples are *Tahiyahus-mi*, "my province," III. 65; *Nivanš-mi*, "my family," III. 80; *Alyeš-mi*, "my house," vi. 43; *Šunkuk-mi*, "my empire," xv. 18. Perhaps *Tassunos-vas-mi*, II. 54-5, may be another instance; but the insertion of *vas* looks strange, and there is no equivalent in the Persian text.

Of the second person, the following examples may be alleged—*Nivanš-nī*, "thy family," III. 76, 88, and probably 87; *āuravasta aišas-nī*, "may Ormazd enlarge for thee," III. 87; *āuravasta rifapis-nī*, "may Ormazd make vain to thee," III. 89. This pronoun is frequently accompanied by *Nin*, as in the examples quoted in the preceding page.

The pronoun *mi* is used as a possessive pronoun only, but the analogy of the second person renders it probable that it might also be used as an oblique case, either dative or accusative. It is of rather rare employment in the inscriptions, the word *Hu* being used optionally for all cases, as in *Hu Atātata*, "my father," I. 3; *Hu Lubaruri*, "my subject," II. 13-4, 22, 38, 61, 80; III. 6. We also find *Hu-nī-na* used as a possessive—*Nimanš Hu-nī-na*, "my family," I. 7; *Alyeš Hu-nī-na*, "my house," III. 81. No genitive of *ni* has been found analogous to the *Hu-nī-na* of the first person. •

The possessive "our" is made by *Nikavi*, clearly from *Niku*,

"we;" we have *Nimanş Nikavi*, "our family," in I. 6, 33, 37, 46; and *Algeş Nikavi*, "our house," I. 52, 53.

The pronoun "he" is made by *yu far ri*, which I write *yufri*, and suppose to mean originally "that person;" *yu* being the remote demonstrative, and *farri* a root of very wide extension, meaning "man." *Yufri* is very frequently used, with and without the usual suffixes—*Kovas yufri yuttās*, "he became king," II. 12; *yufrikki poris*, I. 29, II. 12, *yufrikka poris*, I. 58, "went over to him." *Yufri* is also very frequently placed after proper names, without any apparent necessity, as we may infer from finding the same name in precisely the same sense without the addition. Thus in I. 66, 69, 75, we have *Tassunos appo Nititpaal yufri-na*, "the army of Naditabirus," as though *yufri* were inserted merely as a vehicle to carry the genitive particle *na*; but in I. 76 we find *Tassunos appo Nititpaal-na*, without *yufri*. This annexation of *yufri* to proper names occurs throughout the inscriptions (see I. 23, 78, 79; II. 50, 54; III. 45, &c. &c.), and the word looks more like a substitute for a definite article than a demonstrative pronoun. Examples of its use as an independent personal pronoun have been already cited, to which we may add II. 12, 14, 59; III. 50, 55, where it is made the subject of the verb, and II. 22, 38; III. 18, where it is the object. Once only (III. 22) *yufri* is used as a plural; but I am inclined to suppose it is so used inadvertently, from a confusion between *Vibanus* (whose name comes immediately before *yufri*) and the more distant *Tassunos*, to which *yufri* really refers.

The secondary form of *yufri* is *ir*, which, however, unlike *mi* and *ni*, is placed always before the verb which affects it. From the frequent occurrence of *ir* before a verb, and after a proper name, I was at first induced to suppose it the mark of an accusative case, and to read, for instance, *Kampuchiya yufri Furtiyar affis*, I. 23, "Cambyses ille Bardem occidit," instead of *Furtiya ir affis*, which I now translate "he, Cambyses, killed him, Bardes." Several instances occur in which the pronominal nature of *ir* is clear: *avi ir affiya*, "there I slew him," I. 44; *Hu ir affiya*, "I slew him," I. 64; *Hu-ikki ir nogas*, "they brought him to me," II. 65, &c. &c.: it is also used before neuter verbs, as will be seen when we come to that part of our essay. In III. 21, its appearance before *yuttās* is unintelligible to me; but it may have been written inadvertently as before a neuter verb. The possessive "his" is made by *nitavi*, placed, like *Nikavi*, after its noun. It occurs in I. 43, II. 57, III. 17, 18, 44, 45, always after the word *atarrivan*, "followers."

The plural pronoun "they" is made by the demonstrative *appin* or *apin*, used indiscriminately. I cannot remember that it is ever found

as a personal pronoun in the nominative case;¹ but it would probably be *appi*, if so used, as it is when put adjectively—see II. 1, *appi Tahiyaus*, “these provinces;” *Yoš appi*, “these men,” III. 93. The following sentences are examples of its use: *apin hiš-va puttana*, “I drove them into the river,” I. 77; *maurissa appin afpiš*, “he seized and slew them,” III. 33; *Hu appin afpiya*, “I slew them,” III. 48. In the third column, lines 47—59, we have this demonstrative used several times, like *yufri*, with a proper name, in the repetition of a similar phrase, signifying “he caused the Persians, Susians, &c., to rebel.” The passage occurs nine times; and in the Persian text it is always represented by the same words, repeated like a formula; but in the Scythic version, either from a love of variety, or perhaps from the unfixed condition of the language, it is always rendered by a different set of words. The passage is much mutilated, but enough remains to show the variable practice: in line 50 we find *yufri Afarti-fa appin pafatās*, “he caused the Susians to rebel;” in line 53, *yufri Afarti-fa pafatās*; in line 54, *yufri Mata-pa apin pafatās*; and in line 59 we also find *apin*; in line 52, *pafatis* replaces *pafatās*. In III. 74, *apin* is used apparently in the singular number. In III. 94, *appir* seems to have the meaning of *appin*.

Two particles, *ye* and *ap*, are found before verbs which signify “to address;” the former appears to mean “him,” or “to him,” and the latter, which occurs more frequently, “them,” or “to them.” The opposition is seen by a comparison of those phrases in which Darius addresses the officers or troops whom he dispatched upon the several military expeditions he was engaged in: where he mentions the departure of Dadarshish, in II. 23, he says, *yechitu ye-tiriya*, “thus I addressed him;” and in line 39, speaking to Vomises, he says, *yechitu ye-tiri*; in both cases followed by *vita* or *viša* in the singular, the equivalent of the Persian *pridiya*. In the more usual case, where Darius addresses the army generally, we have *yechitu ap-tiriya*, followed by *višas*, the equivalent of *prita* (see II. 14, 62). *Ap-tiriya* occurs also in I. 16, III. 41; *ap-tirira*, in vi. 30; *ap-tiris*, in II. 6, 59-60; III. 2, 37, and elsewhere. I think *ye*, in *yetās*, II. 63, must be the singular pronominal particle. The expressions *apvatas* and *evaptusta* will be considered under the verbs.

The following is a summary of the personal pronouns as here detailed:—

¹ *Apin* looks like a nominative case in vi. 16, *yupa apin marriš*, “that they kept;” but it may be “that to themselves they kept.”

	Nominative.	Genitive.	Possessive.	Objective.	Accusative.
	—	—	—	—	—
I	Hu	Hu-nī-na	mi	.....	Hun
Thou	Ni	.....	nī	nī	Nin
He	yufri	yufri-na	nitavi	ye ir	.....
We	Niku	.....	Nikavi	.....	.....
You .....	.....	.....	.....	.....	.....
They	appi	.....	.....	ap	appin

DEMONSTRATIVES.

The demonstrative pronouns are *ye*, "this," and *yu*, "that."

Ye is used either substantively or adjectively, and either before or after its noun; as an adjective it is either singular or plural. Examples of all these uses follow: *ye appo Hu yutta*, "this is what I did," I. 21, 54; *ye Hu Mata-pa-ikki yutta*, "this I did in Media," II. 67. Before its noun: *akka ye* = *Murun pasta*, "who made this earth," v. 2-3; *āramasta ye Kavas Hu tunis*, "Ormazd gave me this kingdom," I. 20. After its noun: *Tipi ye*, "this tablet," III. 84; *Tahiyas ye*, "these provinces," I. 15, 17; *pat ye ativa*, "in these battles," III. 60.

Yu is always followed by *pa* in the singular number, and by *pipa* in the plural. Examples—*yupa appo yutraska*, "that which has been done," vi. 39; *appo.....yupa yuttās*, "what [I commanded them] that they did," vi. 16; *Kavas appo.....yupa Hu nogaya*, "the kingdom whichthat I recovered, I. 46; *yupa* follows *ankik*, "heaven," in the usual introductory passages of the small inscriptions; as, *ankik yupa*, "that heaven:" in xv. alone, it is *yufapa*. In the plural we have *yupipa*, as *yupipa yufrikki poris*, "they deserted to him," II. 11-2; *Tassunos yupipa*, "those people," II. 74, 75; *yupipa afpis*, "slay them," II. 39; *yupipa-na*, "of them," is found in III. 72. *Yuvenpa* is also a demonstrative, and seems to be identical in signification (perhaps in sound) with *yupa*; see I. 19.

The indefinite syllable *ta* or *ta* may be mentioned here, as it is frequently joined to *yupa*; it is the Latin *cunque*, old Persian *chiya*; and is of still more extensive use than either; we have *yupata āramasta nisgasnī*, "that may Ormazd protect," xv. 20, xvii. 24. The Persian *avaschiya*, which represents *yupata*, is as though one could say *illudcunque* in Latin; in English we might say "that whatever it may be." We have in xv. 12, *tahie-ta*, in Persian *aniyashchiya*, *aliudcunque*, "any other soever." The Persian *chiya* is more elastic than the Latin *cunque*, but it scarcely reaches the *marri-ta* of I. 29, 60, "all soever," *omniscunque*, and still less the verbal *ta*, which makes a

definite tense indefinite, like our auxiliary, in such expressions as "I have done," and "I may have done." These will be explained in the section of the verbs, and in the mean time I express my conviction that *ta* or *ṭa* is the same particle everywhere, and that it makes either adjective, pronoun, or verb indefinite. In the Mordwin the syllable *ta* is set before pronouns with the signification of the German *irgend*, according to Gabelentz (see Grammar, p. 261). This comes very near to the Scythic meaning. In Ostiak the same purpose is answered by the termination *at*, which accords more in usage with the Scythic term; *e.g.* *met* is "something," *mett-at*, "anything" (see Grammar, p. 51). Other demonstrative pronouns are *appi*, "these," in the accusative *appin* or *apin*. Examples of their use have been given under the personal pronouns. *Apir* and *appir* are also found, but I hardly know how to explain them.

RELATIVE PRONOUNS.

The Scythic language has a genuine Tartar relative particle always placed at the close of a sentence, as in Turkish, Mongol, and Manchu; this particle is *pi*, and will be mentioned presently; but it has also the true Indo-Germanic relative pronoun, allied to the definite article, like the *ὁ* and *ὁ* of the Greek, in which it agrees more with the Ugrian languages. It is of course impossible to say whether this relative pronoun is an inherent part of the Scythic language, or whether it was merely adopted, in imitation of the Persian text from which the translation was made, partly from the desire to be literal, and if the translator was a Persian, which is likely to have been the case, from the difficulty he would feel in comprehending the terminal relative particle; such a difficulty is felt by Europeans when they begin to translate into a language having no other means of rendering a relative phrase; and our countrymen in India are fully aware of it when they render English into Tamul or Telugu.

The Scythic relative pronouns are *akka* and *appo*; the former is used for persons only, and the latter either for persons or things. The following instances will serve to show the use of *akka*: *yufri akka irsarra appini tiristi*, "he who was appointed leader," II. 8; *yufri sinnik akka nanri*, "he came who said," II. 51; see also III. 20, 32, &c. *Ni akka vasissin* — *Ṭipi ye chiyainti*, "thou who hereafter shalt see this tablet, III. 84; *Ni, Ko, Akka*, "thou, O king, who," III. 64. It is used also with inclusion of the antecedent: *akka Mata-pa-na irsarra*, "he who was leader of the Medians," II. 17. *Akka* takes the usual *pa* in the plural:*akka-pa sassa Bartiya ir tarnasti*,

"[he killed the people] who formerly had known Bardes," I. 38; *hiak Yoş akka-pa aţarrivan nitavi yupoſa pi*, "and the men who were his chief adherents," III. 45. A curious instance is seen here of the perfectly indifferent use of *appo* and *akka* where persons are treated of; the preceding line 44 has the whole phrase in precisely the same words, with the sole difference that *appo* is put instead of *akka-pa*; and this is perhaps the cause why *pi* is exceptionally put at the end of a sentence in which *akka* is the pronoun; this particle often closes the relative phrase when *appo* is used, and the two sentences come so near together that one must have influenced the other. In III. 72 we have *akka-pa Ko-fa*, "those who were kings," which is in conformity with Indo-Germanic usage, and is a verbal translation of the Persian text.

The cases in which *akka* may be englished by the definite article are numerous: such as *Gaumatta akka Makus*, "Gomates the Magian," I. 33, 34, 42, &c., while the *akka* is omitted in I. 40. In some cases we hardly know whether to take the article or relative pronoun in making the translation; such as *Bartiya akka Kuras sakri*, I. 39, which may be "Bardes, the son of Cyrus," or "Bardes, who was son of Cyrus."

Appo is rather more frequently employed than *akka*, and its uses are more various, as will appear from the following instances:

Appo, "which,"

Kovas <i>appo</i> Gaumatta	The kingdom which Gomates, &c. I. 32.
Kovas <i>appo</i> kutkaturrakki	The kingdom which had been taken away, I. 46.
Tipi ye <i>appo</i> hu rilura	This tablet which I have written, III. 84.

And in the plural,

Tahiaus ye <i>appo</i>	These are the provinces which, I. 15.
An annapatna.... <i>appo</i> Gaumatta	The temples which Gomates, I. 47.

Appo, "who."

Yoş <i>appo</i> aţarrivan nitavi	The men who were his followers, III. 44.
Ko-fa <i>appo</i> Hu.....mauriya.....	Kings whom I captured, III. 60.

Appo, like *akka*, frequently includes the antecedent :

Appo Hu ap-tiriya That which I said to them, I. 16.
 Ye appo Hu yutta This is what I did, I. 21-2.

The word *anka*, which usually means "if," following *appo*, gives it an extended signification: *Appo anka Hu-ikki-mar tirikka*, "what-ever was said by me," I. 19; this is like the Latin *quis*.

Appo, like *akka*, has often the force of a definite article ; and here also we can generally scarcely decide whether the article or relative pronoun be the better version; the following instances may be adduced:

Tahiyans appo tahie..... The other provinces, I. 26, 30, 35, 50.
 Tassunos appo Nititpaal-na The people of Natitabirus, I. 76.
 Tassunos appo Hu-ni-na My people, II. 18, 19, &c.
 Tassunos appo Patifa-na The people of the rebels, II. 18, 27, 38.

These, with the exception of the first, are generally verbal translations of the Persian text, which has *kara hya mand*, *kara hya Naditabirahya*, where the *hya* is as much a definite article as the Greek *ὁ* in such an expression as Ἀλέξανδρος ὁ Φιλίππου. The last cited phrase is made *Tassunos appo Patifa* in II. 23, and we have *Tassunos Patifa-na*, without the connecting word, in II. 31.

Appo also becomes a simple conjunction, like the Latin *quod* and English *that* ; examples are

Tassunos inni tarnas appo Bar- The people knew not that Bardes
 tiya aspika was killed, I. 24.
 appo Hu inni Bartiya [Let it not be known] that I am
 not Bardes, I. 39.
 appo Gaumatā inni [I laboured] that Gomates should
 not I. 63.

In I. 47, 51 and 53 we have repetitions of the phrase *thap appo anka appuka-ta*, the meaning of which is shewn by the Persian text to be, "as it was formerly." As the combination *appo-anka* certainly implies "whatever," and *appuka* is "heretofore" or "first," and *ta* indefinite, the whole phrase will without any difficulty bear the sense required ; but in the following paragraph, line 55, we have the same words, only without the indefinite *ta*, as equivalent to the Persian *pasava yathā*, "after that." Now unless we choose to make the same word mean both "before" and "after," we have no resource but to

conclude that the Scythian translator varied the expression, writing "this is what I did when first I possessed the kingdom." The purport of the paragraph accords with this, and the omission of the indefinite *ta* will, I think, bear out the meaning here given.

The true Tartar relative particle, as before mentioned, is *pi*, which I believe to have been sufficient, as in Mongol and Turkish, and in the Dekkan languages, to distinguish a relative sentence without the addition of any other pronoun, though it is rarely so found in the inscription; it is always terminal, and the following examples shew its use: *Hu-ni-na inni tirivan pi*, "which is not called mine," I. 23, 39, &c. This phrase is several times repeated; in I. 15, it is a little varied, being written *akka-pa Hu-ni-na inni tirivan pi*; but it is generally put without the addition: *Yoş appo atarrivan nitavi yupofa pi*, "the men who were his chief adherents," I. 43; II. 57; III. 17, &c.; *Tuhiyaus ye appo pafutifa pi*, "these are the provinces which rebelled," III. 61.

This is analogous to the Turkish *دلده کی سر*, "the secret which is in my heart;" *یو تارده کی*, "that which is on high." The Mongol *naghor-de-ki*, "which is in the lake," is like this, and the usage of Tamul and Telugu is precisely similar. The Volga tongues, to which the Scythic forms are more closely allied, appear to have adopted a relative pronoun in analogy with Indo-Germanic languages; but translations from these languages made by foreigners are suspicious, and we have no other authority. The Finnish and Magyar languages, both cultivated by natives, and possessing such relative pronouns, afford a stronger case against the opinion which I am myself more inclined to adopt.

INDETERMINATE PRONOUNS.

"All" is made by *varrita*, *varpafa ta*, and *varripafata*; the Ostiak *per* and *perda*, both having the same meaning, may be allied to these words. I rather think that *var* is the root, that it is made indefinite by *ta*, and that the other words are plurals; but the usage is not uniform. Examples follow: *yupa varrita yutut-ta*, "all that we have done," xv. 15; *Tassunos varrita poris*, "all the people deserted," I. 61; *Tassunos varripafata ir chiyas*, "all the people saw him," II. 66. The same phrase in II. 13, has *varpafata*.

Akkari, in I. 39, must be "every one." The Persian equivalent is *chishchiya*. It occurs again in III. 80, but may be there only part of a word.

"Other" is *takie*—in the Persian text, *aniya*; it comes after the

noun with *appo*, as *Tahiyas appo tahie*, "the other provinces," I. 26, 30, 35, 50. In III. 79 we find *annap appo tahifapa*, "the other gods," after the analogy of *varrifapa*. In xv. 12, the indefinite *ta* is added, making *tahietā*, "any other whatever;" in Persian, *aniyashchiya*; and the same Persian word is rendered in III. 69 by *tahikita*—an adverbial expression, like *tahie ikki*, in L. 3, put indefinitely. From a mutilated passage in III. 7, it appears that *tahi* may come before its noun without *appo*; the word is gone, but as the Persian text has *aniya kára*, "another army," and *Tassunos* is visible on the east, with the succeeding words filled up, it may be fairly concluded that the phrase was *tahi Tassunos*.

It must be admitted that the analogies of the pronouns with those of the Ugrian tongues are feeble; but there are some, and if we go to the languages of India, we find more. I believe *Hu*, "I," is allied to the universal *m* of the Ugrian tongues, and *mi* is so beyond a doubt. The *n* of the second person is found in the Ostiak *neng*; and in the Tamul, Malayalim, and Tuda, we have the full *ni*. The radical *k* of the relative pronoun is also common to all, being *ku* in Finnish and Cheremiss, *kon* in Mordwin, *khoi* in Ostiak, and *kody* in Zyrianian. *Tuhi* is certainly allied to the Turkish *dakhi*. Any others known to me are mentioned elsewhere.

NUMERALS.

It is unlucky for our purpose that the Inscriptions contain no numeral words, the perpendicular and hook repeated serving to show the numbers, as in the other Cuneiform alphabets: we have thus

II, III, V, W, <, <<III, serving to represent 2, 3, 4, 8, 10,

23; 9 is made $\begin{smallmatrix} \text{V} \\ \text{Y} \end{smallmatrix}$, a convenient abridgement not made by the Assy-

rians, who wrote $\begin{smallmatrix} \text{III} \\ \text{III} \\ \text{III} \end{smallmatrix}$. The only number written in letters is *kir*,

"one," which is placed so frequently after a gentile name, with the force of the indefinite article. We have thus *Parsar-kir*, "a Persian," II. 13, 38; III. 52; *Arminiya-rkir*, "an Armenian," II. 22, 36; *Bapilu-rkir*, "a Babylonian," III. 51; *Markus-rkir*, "a Margian," III. 56. *Ruven-kir*, "a certain man," II. 4, 9, &c., occurs frequently, and the intervention of the letter *r* in other cases where *r* is not inherent as in *Parsar*, affords a presumption that the syllable *ven* does not correctly represent the sound of $\rightarrow \text{E} \rightarrow \text{Y}$. I had at first

selected *kpar*, supposing the character to be a compound of 𐰚 and 𐰜 ; but discarded it from its awkward appearance: I now think it better than *ven*; but it is too late to alter, and this is of the less consequence as the syllable is admitted to be a mere makeshift. That the first *r* is not a part of the numeral appears from the expression frequently occurring in the introductory passage of the small inscriptions, *kir irsikki-fa-na*, "one of many;" in the Persian *aiva parunám*.

The ordinal number is made by adding *im* to the cardinal. See I. 7; II. 28, 32, 44; III. 36. In all cases where the inscription is unmutilated, we find *immasva* after the numeral; and as the ordinal in every such instance is in a sort of ablative case, meaning "at the second (or third) time," it is almost certain that *va* is the case-ending and *mas* or *vas* the article, leaving *im* for the ordinal formative. This is precisely the Samoyed of Gabelentz, where *tet*, "four," makes *tetim*, "fourth" (see *Zeitschrift der deutschen morgenländischen Gesellschaft*, vol. v. p. 40). In the Cheremiss, *msha* is most frequently the form (see Wiedemann, p. 91, and Castrén, p. 19). The Ostiak form is *met* (Castrén, p. 37). It is not unlikely that the final consonant in both languages may have the force of the definite article. Unluckily, in I. 7, where the ordinal is in the nominative (or predicative) case, the impression is lost; it would have shown whether or not the *va* be a case-ending; but there is hardly room for the syllable in the space left, which is so far evidence that it does not form part of the ordinal number.

VERBS.

Indications of the analogy between the language of the Scythic Inscriptions and those still spoken in the basin of the Volga are more obvious in the forms of the verbs than in the other parts of speech, though the only part we have of the verb at all approaching completeness is the past tense. We should have expected several examples of the future tense in the third column, as well as of the imperative mood, and of any other modal modifications, if the language possessed any; but, unfortunately that column is deplorably mutilated, and we are thus deprived of certainty in our conclusions. This perhaps is of less consequence in the class of languages compared than it would be in the Indo-Germanic tongues, because the difference of tense is made rather by the addition of a letter or syllable between the root and termination than by any change in the termination itself. Probably some of these modifications are concealed under the forms which I have been compelled to leave unexplained.

We proceed to give what appears to be the normal form of the past tense.

Verbs ending in <i>a</i> .			In <i>i</i> .	In <i>u</i> .
1st Person Singular.....	<i>a</i> or <i>aya</i>		<i>i</i> or <i>iya</i>	<i>u</i> or <i>uwa</i> .
2nd " " 	<i>ainti</i>		<i>inti</i>	[<i>uinti</i>].
3rd " " 	<i>as</i>		<i>is</i>	<i>us</i> .
1st Person Plural 	<i>ayut</i>		[<i>iyut</i>]	—
2nd " " 	—		—	—
3rd " " 	<i>as</i>		<i>is</i>	<i>us</i> .

The paradigm may be compared with that of the Zyrianian preterite, of which *kery*, "I have done," may serve as an example; it is thus conjugated: *kery*, *kerym*, *kerys*, *kerym*, *kerynnyd*, *kerysny* (Grammar, p. 85). The Scythic first person plural has more analogy with the Magyar and Siberian; the former ends in *tük* in the preterite tense, and *jük* (pr. *yuk*) in the present: the Ostiak form for the same case is *eu*, and the Samoiede-Ostiak *ut* (Castrén, p. 30). The Scythic second person singular is sometimes written *inta* instead of *inti*; but I do not think that any modification of the sense of the verb is caused by this change. We have also *irti*.

The following examples, taken almost entirely from the Behistun Inscription, will furnish the evidence of the above paradigm:—

FIRST PERSON SINGULAR.

In *a*.—*Yutta*, "I did," *passim*; signifies also "I am" (see *yuttās* below).

Pugatta (?) "I neared," I. 72, 79.

Luchogatta, "I went away," II. 49.

Nogaya, "I brought, sent," I. 51, 63, 79; II. 74, 81.

In *i*.—*Afpi*, "I killed," I. 76; II. 53; *afpiya*, I. 42, 44, 56, 64, 69, 75, 79; III. 49.

Tiri, "I said," II. 39; *tiriya*, II. 14, 23; III. 41.

Vachchi, "I cut off," II. 65; *vachchiya*, II. 55.

Poriya, "I went," I. 65, 71; II. 49.

Marriya, "I seized, possessed," I. 21, 79; *mauriya*, III. 60.

In I. 17-8, and III. 81, we have *kukti*, "I favoured," where *kuktaya* would have been expected.

In *u*.—*Evitu*, "I deprived," I. 44 (not clear; perhaps *evituro*).

Yuttu, "I sent," II. 22.

Patu, I. 21; II. 57, 67 (I hardly know the meaning).

Riluva, "I wrote," xvi. 24.

Kituva, II. 56, 65 (certainly a first person singular, but I am not sure of the meaning).

The difference between *i* and *iya*, as well as that between *u* and *uva*, is merely formal. That there is a greater distinction between *a* and *aya* may be inferred from the passive forms; *yutta* becomes *yuttak*, and *nogaya*, *nogaiik*; this however may be accidental.

SECOND PERSON SINGULAR.

The form of this case being more uncertain and various, the passages in which it occurs will be cited at length. They are arranged here with reference to the several forms, for the convenience of investigation by others who may have better means than I have of penetrating the value of the modifications found.

INTI:—

Anka lulne ye innŷ tartinti,	If thou do not conceal this record,
Tassunos apin tirinti	but tell it to the people, III. 74.
Anka > Ţipi ye chiyainti	If thou see this tablet, III. 85.
Ni akka > Ţipi ye chiyainti ..	Thou who shalt see this tablet,
	III. 84.
Yufri hini in-kannŷinti	Him do not thou befriend, III. 83.

The last example must be an imperative, as must also be the *hini vachŷainti*, *hini antartainti*, "do not abandon, do not oppose" (?), of vi. 48.

In the phrase *nimanŷ-nŷ hini kitinti*, "mayest thou have no offspring," in III. 76 and 89, the last word should perhaps be divided *kit inti*, "may it be to thee;" but I do not quite see through the construction.

INTA:—

Anka sarak lulne ye tartinta....	If again thou conceal this record,
	III. 76.
Anka..... thap innifapata	If as long as thou livest thou pre-
[ye]chitu kuktainta	serve them, III. 86.

IRTI:—

Appo yutirti What thou shalt do, III. 87.
 Anka > Tipi ye inni kukirti.... If this tablet thou shalt not pre-
 serve, III. 88.

THIRD PERSON SINGULAR AND PLURAL.

In *a*.—*Chiyas*, “saw,” I. 56, 66.

Turnas, “knew,” I. 24.

Nogas, “brought,” II. 65.

Yuttas, “did,” I. 16, 19; II. 20, &c.

The verb *yut* means “to do,” and “to be.” I believe these meanings to be connected, as are *fio* and *facio* in Latin, the one being the causative of the other. *Jut* in Magyar is analogous to the Latin *fit*, “it happens,” “it takes place;” in some of the Ugrian dialects the addition of *t* makes a causative; thus, in Ostiak *yendem* is “I drank;” *yenttem*, “I caused to drink.” In like manner *yutta* in Scythic signifies “I am,” and *yuttta* would mean “I caused to be,” “I made;” but as such an accumulation of consonants would be inconvenient, both significations are expressed by the same word. Throughout the Behistun Inscription these senses are distinguished in the third person; “he was” being written >||< &|| ||&|| *yuttās*, as in I. 59, II. 12, 81, &c.; and “he made,” >||< &|| &||>|| &||>|| *yuttās*, in the cases before cited; but the distinction is not made at Persepolis or elsewhere; nor is it made at Behistun in the preterpluperfect tense: I believe the syllable made by two letters was pronounced long, and might be written *tās*; something like this is found in the first person plural also.

The termination *tās* is added to pronouns in the sense of the verb: we have thus frequently *hu-tās*, “he was to me,” or “they were to me,” II. 12, 34, &c.; *ye-tās*, “he made to him” (il lui fit), II. 63: we have *tās*, meaning “it was,” in I. 33; *tas-ta*, “he hath created,” must be the same word with the addition of *ta* (see vi. 2). The frequently occurring phrase *pikti Hu tās* is translated in the analysis “a helper he was to me,” it might perhaps have been better “help he made to me;” the instance in II. 12, is rather in favour of the former rendering; that in II. 63 of the latter. *Apvatās*, “he made to them,” II. 25, 71, 82, looks like the same termination. See below the first person plural for a like usage.¹

¹ This is in entire accordance with Ugrian usage. See (for the Mordwin)

In *i*.—*Affis*, "he killed," I. 23; II. 8, 18; III. 33-4, &c.

Kutis, "brought," I. 16.

Marris, "seized, held," I. 31, 62; II. 65.

Satis, "awaited," II. 20, 36, 48.

Poris, "went," I. 24, 29, 38, 58, 62; II. 12; III. 29.

Tiris, "said," II. 6, &c.

In *u*.—*Evitus*, "he deprived," I. 24.

Rilus, "he wrote," in xvi. 23; but the *s* uncertain.

In I. 49 we have *evaptusta*, certainly meaning "he had taken from them:" this may be *evitus* with the oblique pronoun *ap* interposed and the indefinite *ta*; the word would thus mean "he took from them at any time."

I do not know if the termination *sa* in *thap chiyasa*, "when he saw," vi. 27, be the indication of a subjunctive mood: the termination does not occur elsewhere; but it is quite in accordance with the form of the Cheremiss, which adds *she* to the root in the third person singular of the conjunctive, while the indicative takes *esh*. See Wiedemann, p. 139.

FIRST PERSON PLURAL.

Yuttayut, "we did," I. 70-1, 74, 75; II. 51-2.

Yuttikut, "we did," II. 53.

These two modes of spelling give nearly the same sound; with the addition of the indefinite *ta* a contraction takes place, *tut* being substituted for *tayut*; as in xv. 15, *yuttut-ta*, "we have ever done;" in *antugahutta*, "we crossed," I. 68, the contraction is not made. Perhaps yuttut was pronounced *tyu*.

The termination *hut* is found alone in the following cases, in a similar way to the *täs* and *täs* mentioned above:

Sassa-ta kara-ta-turi sacho hut From old time we are descended,
I. 6.

Niku Ko-fa hut We are kings, I. 8.

When two verbs come together in the third person, which would in English be connected by the copulative conjunction, it is not un-

Gabelentz, p. 402, where it appears that any words whatever, in any form, may assume the verbal ending: examples are *pas-an*, "I am the Lord;" *pasen-än*, "I am the Lord's;" *pots-an*, "I am in," &c. &c.

usual to terminate the first verb in *ssa*, instead of *s*. Instances of this practice are seen in the sentences which follow :

Ir marissa, ir afpis	They seized him and killed him, II. 8.
Yechitu ap-tirissa nanri.....	Thus he addressed them and said, II. 10.
Maurissa appin afpis	He seized and killed them, III. 33.
Appin pafatāssa nanri	He excited them and said, III. 50-1.
Ir vachāvassa pafatifa	They forsook him and revolted, II. 69-70.

The first form may perhaps be looked at as gerundial, but I am more inclined to consider it as continuative; merely shewing that the speaker has something more to say.

There is another modification found which may be called the indefinite past, meaning what has been done at some time or other, as distinguished from that which was done at some definite time; it is like the distinction made in English by the different forms, "I made," and "I have made." An example is found in Inscription xv., on the gates of Persepolis, where Xerxes says: "I made this portal," and "many other noble works I have made;" in the former instance using the definite, and in the latter the indefinite form. The distinction is made by suffixing the syllable *ra* to the first person singular, and *ta* to the third persons and to the first person plural. It is not improbable that the difference in the terminations *nti* and *rti* of the second person singular, before mentioned, may be a similar modification.

The following examples are in point :

First person.

Ye....Hu yutta; irsiki tabieta....	This I made, and many other works
Hu yutta-ra	I have made, xv. 12-14.
Appo Hu yutta-ra, yupata, &c.	Whatever I have done, that [may Ormazd protect], xv. 19, 20; xvii. 22.
Appo Hu ap-tiri-ra, yupa yut- tās	Whatever I told them, that they did, vi. 30.
Ye Tahiaus appo Hu marri-ra	These are the provinces which I have held, vi. 13.
Ni, akka - Tipi ye chiyainti, appo Hu rilu-ra	Thou who mayest see this tablet which I have written, III. 84.

In these cases the syllables *ya* and *va*, which may terminate the first person, are omitted. *Ra* must be the indefinite syllable which is added to substantives in the nominative case, as noticed in the section treating of that part of the grammar. In the Detached Inscription A it closes the sentence beginning with *Hu*, coming after *Akavanniya*, as though *Hu ra* signified "I am." *Va* certainly has that value; see *Hu yutta-va*, I. 57; II. 6-7, 51, 60; III. 44, 54, 55, 59, and the detached inscriptions. The only instance where *va* has not that meaning is in III. 22, where it is unintelligible to me.

Third person.

Appo Aттata yuttāsta, yupata, &c.	Whatever my father has done, that [may Ormazd protect], xv. 20; xvii. 24.
Akka Tariyavaus [or Xerxes] Ko ir yuttāsta	Who hath made Darius king. Introductory passages; xvi. only has <i>kuttāsta</i> .
Tahiyaus yupa appo Tariya- vaus Ko marrista	That province which king Darius hath held, vi. 32-3.

Tātta and *pasta*, "he hath created," in all the introductory passages, are instances of the same indefinite modification. *Pafatusta*, "he hath made," vi. 3, is another instance. At Behistun we have *tharis-ta*, "he abolished" (?) I. 48, and *parrusta*, "he laboured," (?) III. 81, but the passages are both mutilated; the last however is certainly indefinite. We cannot expect to find many examples of this indefinite modification in the record of Behistun, which is almost wholly made up of positive definite narrative.

First person plural.

.... yupa marri-ta..... yuttūt-ta	[Whatever I and my father have done] all that [by favour of Or- mazd] we have done, xv. 15-6.
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Here, as in the first person singular (*tiri-ra*), the additional syllable has the effect of shortening the preceding word; and although the absence of any distinction, at Persepolis, between $\Sigma\text{--}\Upsilon\text{--}\Upsilon$ $\Sigma\text{--}\Upsilon\text{--}\Upsilon$ and $\Upsilon\text{--}\Sigma\text{--}\Upsilon$ as a verbal termination, deprives us of evidence of the same fact in the third person singular, it will hardly be doubted that $\text{--}\Upsilon\text{--}\Upsilon\text{--}\Sigma\text{--}\Upsilon\text{--}\Sigma\text{--}\Upsilon\text{--}\Upsilon$ at Behistun would have been contracted to

𐎶𐎶𐎧 𐎶𐎶𐎶𐎶𐎶𐎶, if the form of *yuttasta* had occurred. The occurrence of *yuttāsti*, in III. 30, amounts almost to evidence that such would have been the case.

PRETERPLUPERFECT TENSE.

The addition of the syllable *ti* to the termination of the third person singular preterite forms a pluperfect tense; these terminations become *asti*, *isti*, and *usti*; and it may not be going too far to suggest that this is allied to the 𐎶𐎶𐎶, which produces a similar modification of time in the Turkish language.

The following examples will justify the attribution of this form :

Akka-pa sassa Bartiya ir tar-nasti	Who had before known Bardes, I. 38.
Tassunos-na irsarra Vistaṭṭa ir yuttāsti	Visdates had made him leader of the army, III. 30.
Appo Gaumatta Kanpuchiya eviṭusti	Which Gomates had taken away from Cambyses, I. 33.

In the sentences which follow *tiristi* looks like a passive verb :

Tahyaus ye appo Hu-nī-na tiristi	These are the provinces which were called mine, I. 9, 15.
Akka irsarra appinī tiristi	Who had been appointed leader, II. 8.

FUTURE TENSE (?).

The termination *ra* appears in several cases to express a continuation or futurity, like the Mongol and Manchu *ra*, see Schott, p. 46; but it is a puzzling particle, and is possibly a mere mark of indefiniteness, whether added to a noun or verb. A full investigation of this particle would require more acquaintance than I possess with cognate tongues, and perhaps more examples of its use than the inscriptions afford.

The following examples look like future tenses :

Ni, Akka 𐎶𐎶𐎶𐎶𐎶𐎶 ye pahu-raura	Thou who shalt peruse this tablet, III. 67-8.
Akka 𐎶𐎶𐎶𐎶𐎶𐎶 ye paraura	He who shall peruse this tablet, III. 70-1.
Ankiri-nī Auramasta ra.....	Ormazd shall be witness (?) to thee, III. 68.

In the two cases following the value of *ra* is connected with its power in the preceding examples, and at the same time with the sort of indefinite pronominal power indicated in the section of substantives.

Yoširra tišainra, yufri tartuka, &c.	The man who may be false, him punish, III. 64.
Yoširra tirasra, yufri hini in- kanninti	The man who may be a liar, him do not befriend, III. 83.

The translation may be "any false man," "any liar." In the phrase *innī urinra*, III. 71, the meaning is not clear.

IMPERATIVE MOOD.

Whether in the second or third person, the imperative mood appears to end in *s*, like the third persons of the past tense. The instances which follow shew this :

Vivana afpis	Destroy Vibanus, III. 23.
Ni uris	Know thou, III. 73, see also l. 67.
Yechitu kuktās	Thus preserve [them], III, 85 ; see also l. 94.
Rifapis-nī	May he make vain to thee, III. 89.
Afpis-nī	May he slay thee, III. 88.

The first example is unmistakeably imperative ; a similar phrase is frequently repeated, and *afpis* is usually followed in such combination by *vanka*, as in II. 15, 23, 39, 62 ; III. 41. Of these examples, II. 23, 39 are addressed to single persons ; the others are plural ; in II. 82, also addressed to a single person, we have *afpis-nī vanka*. It may be that *van* is passive, as in *tirivanium*, and *ka* may be the usual passive termination, making the meaning "let them be destroyed ;" but the first-cited instance seems to prove that the addition is unnecessary. *Uris* and *kuktās*, of the second and third examples, are clearly active ; the other cases are in the third person singular.

NEUTER AND PASSIVE VERBS.

Neuter and passive verbs appear to be conjugated in the same way, as is the case, to a certain extent, in Magyar. In the latter language active verbs are conjugated in two forms ; the first mode, called definite, is employed when the verb is followed by an objective case, the second, called indefinite, when there is no object. In much of its

conjugation the Magyar passive verb has the same terminations as the indefinite form. We have nothing like this in the languages usually studied, but the difference between "I speak" and "I say" may give an idea of the distinction; the former being indefinite, the latter definite. Now we have too few examples in the Inscriptions to generalise with much confidence, but the following principles appear to prevail: The active verb has its own mode of flexion, as already given; the passive has also its form, which we are about to give; but the neuter verb, when it signified a state of rest, as "to sit," "to dwell," "to remain," was conjugated like a passive, as in Magyar; and when it designated motion, as "to go," "to march," it was considered active, when the object was expressed to which the going or marching was directed, and passive when there was no such object; thus "the army marched" would be rendered by the form of the passive voice, as it would be in Magyar, while "he deserted to him" would be put in the active form. This seems to have been rather a practical rule than a principle of the language, and it is not invariably followed, as we shall presently see. The characteristic of the neuter or passive form in the third person singular is *k*, precisely as in the Magyar; sometimes *kka* or *ka* is substituted for *k*, and the substitution is frequently accounted for on the same principle as that of *ssa* for *s* in the third person singular active; though it takes place also where no such principle can be traced.

PASSIVE VERBS—THIRD PERSON SINGULAR.

Ye appo Hu-ikki-mar yuttak	This [is] what by me was done, I. 54.
Innī yuttak.....	[It] was not done, III. 73.
Appo anka Hu-ikki-mar tirikka	Whatever by me was said, I. 19.
Yufri marrika, rabbaka, Hu-ikki nogaik	He was taken, chained, and to me was brought, I. 64.
Marrika Hu-ikki nogaik	He was taken, and to me was brought, II. 55.
> Chifa hu-nīna-va rabbaka marrik	In my palace he was chained and bound, II. 55, 66.
Innī tarnas appo Bartiya af-pika	Knew not that Bardes was slain, I. 24.
Arakka marrik	Aracus was seized, III. 44.
> Tipi ye-va riluik	In this tablet is written, III. 67.
Appo tipī ye-va innī riluik	Which are not written in this tablet, III. 70.

Kuktak, "cherished," in a mutilated passage, I. 19.

In xv. 15, we find *chiamak* where we should expect *chiyak*; but this apparent irregularity is probably a very curious case of analogy with the usage of the Cheremiss and Zyrianian languages. The Persian passage equivalent to that in which *chiamak* occurs is translated by Colonel Rawlinson "whatsoever noble works are to be seen;" and the idea is obviously more comprehensive than what would be expressed by the mere participle "seen:" we might say "visible," "conspicuous," but there is no regular modification of the verbal form in any Indo-Germanic language to express such a modification of its value. The tongues above-named have such a form, and it is made by the insertion of *m*, precisely as in the Scythic text. The Zyrianian more especially exemplifies this generalising power of the inserted *m*: from *zeras*, "it rained," comes *zermas*, "it was rainy;" from *tôdas*, "he knew," *tôdmas*, "he was generally known."

NEUTER VERBS—THIRD PERSON SINGULAR.

Vasni Tatarşis thak	Then Dadarses marched, II. 24 (see also line 40).
Avi artak	There he dwelled, II. 5.
Lulwak	May be 'he dared,' I. 40.
Senrik	There was, I. 36.
Yufri şinnik	He came, I. 74, II. 50-1.
Yufri ivaka nanri	He arose and said, I. 57.
Avi ivaka	There he arose, I. 27 (see also I. 28, II. 6, 9).

In one case, at least, the form in *k* is found with the indirect regimen :

Vitarna Mata-pa-ikki thak Hydarnes to Media went, II. 15-6.

It would appear that those verbs which follow both forms, definite and indefinite, take before them the pronoun *ir* in the third person, when the form is indefinite; that, for instance, "he went" would be rendered either *poris* or *ir-porik*. This conjecture is strengthened by finding the particle *in* before such verbs in the first person, as we shall see presently under the termination *gat*; this particle *in* having probably the same relation to the pronouns *Hu* and *mi* as *ir* has to the pronouns of the third persons: the verb, in fact, is like the French neuter verb reflected; such as *je me promène, il s'avance*. The following are examples of such verbs in the third person;—

Thap Mata-pa ikki ir-porik	When he went to Media, II. 16.
Thap Parsan-ikki ir-porik	When he went to Persia, III. 8.
Thap Arminiya-fa-ikki ir por- ikka	When he went to Armenia, II. 24, 40.

THIRD PERSON PLURAL.

It is an exception to the usual identity of the singular and plural numbers in the verb, that neuters change *k* into *fa* for their plural; passives would probably change in the same way, but there is no certain instance in the inscriptions: I believe that *pafalufa*, in III. 46, means "they were slain," though the Persian equivalent is lost. *Fa* is clearly the pluralizing particle, as in nouns. The following phrases afford instances of this form:—

Appi Yöş Hu tayufa	These men accompanied me, III. 92.
Tahiyaus ye appo pafatifa pi....	These are the provinces which revolted, III. 61.
Tatarşis ir-va şinnifa	They came before Dadarses, II. 24-5, 29, 32-3.

In the last phrase, which is repeated, with the name of Vomises, in lines 41, 45, I conclude that *va* is the postposition *in, to, upon*, though I should hardly have expected to find it so placed.

Tahiyaus Hu-ni-na ayuttafa	The provinces submitted to me, II. 78, 85; II. 34.
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The plurality of the expression in line 78, is undoubted, the provinces of Parthia and Hyrcania being alluded to; in the other cases one province only is spoken of; but *Tahiyaus* is so often used as a plural, that the plural form of the verb might follow as a matter of course. See II. 79.

Appi Tahiyaus Hu ir-pafatifa	These provinces revolted from me, II. 2.
Thap Tassunos yupipa Vistaşpa- ikki ir-porifa	When those troops went to Hys- taspes, II. 74.
Tassunos Parsan ir-porifa	The Persian troops went, III. 7.

We have also *pafalufa* in III. 46, and *senpafa* in III. 72: both passages are mutilated, but the words are certainly plural.

FIRST PERSON SINGULAR.

I have brought this form here, although it may seem out of its place, because I am in doubt as to its proper allocation. The following examples will show the meaning better than any explanation I could give; it would hardly be inferred from the structure of the word.

Kus Hu şinnigat.....	Until I came, I. 40.
Kus Hu Mata-pa-ikki şinnigat	Until I arrived in Media, II. 37, 48.
Kus Hu şinnigat Mata-pa-ikki	Ditto ditto II. 21.
Kus Hu > Bapilu sennigat.....	While I was in Babylon, II. 1.
Kus Hu Parsan-ikki hiak Mata-pa-ikki sennigat	While I was in Persia and Media, III. 35-6.
Thap Mata-pa-ikki in-porugat	When I arrived in Media, II. 50.
Hu avasir Affarti inkanna sennigat	As I was friendly towards Susiana, II. 7.

It is not clear that this termination is connected with those preceding. The Cheremiss has a form used after conjunctions, made by the addition of *gets* to the root¹. It looks very much like a subjunctive mood; but the question must be left to Tartar philologists.

We have the word *tiri*, "to say," used twice under forms not found elsewhere, and which must be taken as appertaining either to a reflected form or passive voice. The first instance, *tiriyas*, occurs in II. 69, where the passage reads, "the Persians and Hyrcanians revolting from me" *Fruvartis-na tiriyas*, "called themselves, or were called, men of Phraortes." I do not know if this form can be considered analogous to the Mordwin passive, which is regularly made by inserting *v* before the termination (see Grammar, p. 270); but *tiriyas* may, with more probability, be considered reflected, because we have already the form *tirikka*. The other form is *tirivanium*, I. 5-6, "we are called," or "we call ourselves." This word I would divide *tiri-van-iun*, and would compare *van* with the Magyar particle *van*, which now forms the participle, or with the Turkish *n*, which makes regularly the reflected verb in that language; and this last is the most probable supposition, because the ancient Magyar form is *va* only. The termination *iun* is closely analogous to the Magyar *unk*, which, in passive verbs, replaces the *jut* of the definite active form.

The same verb, under the active form *tiristi*, appears to have the same passive or reflected sense in I. 9, 15; II. 8 (see *ante* p. 85).

¹ See Wiedemann's Grammar, p. 144.

Tirican-pi, "who was called," is probably a participle, with the relative particle *pi*.

GERUNDS.

Four forms, if not more, appear to have a participial or gerundial signification; one of these appears to be the present (or rather aorist) tense, another refers to past time, and two to the future; one of which is used for the singular and the other for the plural. The characteristic of the aorist and of the future plural is *ba*, which may be allied to the Turkish gerundial termination; that of past time is *ras*, and the future singular ends in *ra*, certainly allied to the Magyar, Turkish, Mongol, and Manchu *ra*. The syllable *van* which precedes *ra*, may be equivalent to the Magyar syllable mentioned before, which forms the participle in that language.

PRESENT OR AORIST.

Pati-fa fruirsarra-fa-ba The rebels assembling, II. 24, 32, 40, 44; III. 27.

In II. 28, where the same passage occurs, the termination is *apba* instead of *faba*; which seems to prove that we have here the pluralizing particle, leaving *ba* for the gerundial form.

Hu-ikki-mar pafati-fa-ba [The Parthians and Hyrcanians] revolting from me, II. 68.

Bapilu-fa Hu-ikki-mar pafati-fa-ba The Babylonians revolting from me, III. 38.

Tahiyaus Markus yesi Hu-ikki-mar pafati-fa-ba The province called Margiana revolting from me, II. 79.

This passage is in the singular, but the word *Tahiyaus* is so often a plural, that the writer may have been misled. See page 89.

Pafalufaba in I. 68 and *lufaba*, in I. 78, do not look like participles, but both passages are damaged and of uncertain signification. *Ba* without *fa* might be expected in the singular, but I have failed to recognize any instance.

PAST TIME.

Fruvartis.....putras-ka > Rak-kan thak Phraortes having fled, went to Rhages, II. 54.

Nititpaal.....putras-ka Naditabirus having fled, I. 78.

Vistaṭṭa.....putras-ka Veisdates having fled, III. 13.

Yufri hu-ikki-mar pafaras-ka He having revolted from me, II. 59.

The termination *ka* is probably the neuter and passive particle, and I believe that in the purely active form *ras* only would be found; this view is confirmed by comparing the examples which follow, and although the second requires a slight correction of Westergaard's copy, I have no doubt of the verification.

Iraikki tahie-*ta* şinîna yutras Many other noble things having done, xv. 15.

Yupa appo yutras-*ka* That which has been done, vi. 39.

Westergaard's copy has 𐰽𐰺 , which is here made 𐰽𐰺 .

I think *tiras*, in III. 83, is an example of the same form: "the liar," "the one who has lied;" and it is not unlikely that the frequently-recurring word *tiraska* is a similar form, with neuter signification.

FUTURE SINGULAR NUMBER.

Nititpaal şinnik, sapra- Natitabirus came, about to make
kimmas yuttivanra battle, I. 74.

The same passage occurs with another name in II. 51, and similar passages occur, though mutilated, in III. 10, 14. This form is used only in the singular, and it is equivalent to the Persian *chartaniya*, which is less definite, meaning both singular and plural.

FUTURE PLURAL NUMBER, ACTIVE.

Patifa şinnifa, saprakim- The rebels came, about to make
mas yuttîniun-huba battle, II. 25, 29, 33.

The same phrase occurs, with the substitution of *yu* for *hu*, in II. 41, 45. This form, like the preceding, represents the Persian *chartaniya*, and *huba* can hardly be anything else than the gerundial *ub*, which plays so conspicuous a part in the Turkish language; though it seems curious that it should be confined to the plural number, the intermediate *niun*, although like in form, can hardly be connected in signification with the *niun* of *tirivaniun*; it is more probably a variation of the *van* of the preceding form, but I am unable to give any opinion as to the reason of the change.

There are some other verbal forms, but they do not occur often enough to give a clear insight into their especial signification; we may perhaps except *ri*, which occurs so often in the word *nanri*, and which must certainly denote the third person of the present tense. See also *ankiri*, III. 68; *revanri*, III. 71-2; and *senri*, passim. It appears from II. 81, that *nanri* became *nanga* in the past tense.

I have little more to say of the remaining parts of speech. It appears from the word *irsikki*, "greatly," that the dative case-ending, as might have been expected, converted the adjective into an adverb; but we have no other instance to show that it was the normal form. The use of the verbal termination *gat* after the conjunction *kus*, in I. 40, II. 1, III. 35, and after *thap*, in II. 50, prove that the conjunction had a power similar to that of the same part of speech in other languages; but the instances in I. 21, and I. 52, appear to show that the more common form might also be used in such cases. All I know of the postpositions has been mentioned already in connection with the substantives.

The structure of the sentences is generally so very simple, that the syntax may be disposed of in few words; the concluding portion of the inscription, which would have afforded some examples of a more complex kind, are too much mutilated to give sufficient information for anything more extended. The nominative case usually comes first, the regimen (whether direct or indirect) follows it, and the verb closes the phrase. Examples are: *Hu Kovas marriya*, "I the kingdom held," I. 21; *Hu Gaumatta afpiya*, "I Gomates killed," I. 42: when a verb is followed by both the dative and accusative cases, I think the accusative always comes first, as in *Auramasta Kovas Hu tunis*, "Ormazd the kingdom to me gave," I. 9, 20, 45. In several cases we have the object before the subject, as *Kovas Hu evitunua*, "the kingdom I took away," I. 44; *Kovas yufri marris*, "the kingdom he seized," I. 30-1; and there appears to be no reason here and elsewhere why this difference was made, unless it be thought that the expression received some force by the inversion (see also lines 57, 62, 77, 80). Subordinate expressions of course follow the principal word, as in *Gaumatta akka Makus Kanpuchiya evitua*, "Gomates the Magian deprived Cambyses," I. 34.

The adjective seems always to have followed the substantive, as in *Talnifa arikkifa*, "faithful cavaliers," II. 54; *Ko irsarra*, "great king," *passim*.

Adverbs appear to have no especial position in the sentence, but are placed near the verb they modify; we have *Tassunos irsikki afpis*, "the people utterly he slew," I. 38; *titkimmas Tahiyas-ativa irsikki guttas*, "falsehood in the country greatly prevailed," I. 25, with the adverb before the verb; and *Tassunos Hu afpi irsikki*, "the army I destroyed utterly," I. 76-7; *Vistabba Tassunos afpis irsikki*, "Hystaspes the army destroyed utterly," II. 76, with the adverb after.

Conjunctions sometimes invert the order of words, as in *thap*

Gaumatta Hu afpiya, "when Gomates I killed," I. 55-6, and sometimes not, as in *thap Tassunos yupipa Vistasba-ikki ir-porifa*, "when those troops to Hystaspes went," II. 74.

These observations are jotted down without any systematic examination, and they merely serve to show that the language was by no means regularly cultivated; that no laws of composition were known, but each clause was set down as it arose in the mind of the writer. In fact, the whole of the great inscription is full of irregularities in regard to construction: the termination of the genitive case is often omitted; another syllable is sometimes substituted, which usually makes a dative case; and not unfrequently the relative *appo* placed before the second word serves to show the genitive, or is superfluously added to the genitive: compare *Tassunos appo Patifa*, "the army of rebels," II. 72, 76, with *Tassunos appo Patifa-na*, in II. 27, 31: the indefinite article is sometimes made by the numeral *kir*, and sometimes by the particle *ra*, under precisely similar conditions: the relative is made by *appo*, *akka*, *akkapa*, or even omitted altogether: verbs, in the same situation, and with the same meaning, have varying forms, as *pafatàs* in III. 50, and *pafatis*, III. 52; *ap-tiris*, II. 6, and *ap-tirissa*, II. 10; and all these differences occur in immediate juxtaposition. In the closing formula of each campaign, which is rendered "this I did in Persia, Media," &c., we have the name of the province either preceded by the local wedge, as in I. 85, III. 34, 47, or followed by the postposition *ikki*, as in II. 67, III. 19, or even put alone, as in II. 78. All this shows either a love of variety, or a very unsettled condition of the language—perhaps both. At the same time, the orthography is very uniform; with barely two or three exceptions, every word is spelled in precisely the same way, and the uniformity of practice extends to all the inscriptions from Armenia to Persepolis: the only one which shows a departure from the rule is that of Artaxerxes, at Susa, which may owe its varied forms more to the distance of time at which it was written than to irregularity of cotemporary practice.

I now proceed to the analytical examination of all the extant inscriptions. The paragraphs of the great Behistun monument are divided and numbered as in the Persian Memoir of Colonel Rawlinson, for the purpose of facilitating the collation of the two. The numbering of the lines, as they exist in the Scythic version, is made by small figures at the beginning of each line, corresponding with the engraving on the rock: this will be a sufficient guide to the lithographic plates and literal transcript. The smaller inscriptions are numbered as in Colonel Rawlinson's Memoir; no others are shown on the lithographs but those of which I have casts or impressions.

ANALYSIS.

COLUMN I.

I. 1. ¹Hu, Tariyavaus, Ko irsarra, Ko Ko-fa-inna, Ko
 I, Darius, king great, king of kings, king
 > Parsan-ikka, Ko Tahiyaus-na, Vis'tasba sakri, Irsama
 in Persia, king of province, Hystaspes' son, Arsames'
 Ruvenyusakri, Akamannişiya.
 grandson, Achæmenian.

In the Detached Inscription A, which is generally equivalent to the first four paragraphs of this column, we have the characters
 Y YMF >ZY I FMY >ZY >ZY, instead of *Ko Ko-fa-inna*; I should think it must be an erroneous copy, but there is no cast which might serve for a verification; for *Parsanikka* we find *Parsan-ikki*, and part of the paragraph is omitted; at the close *ra* is inserted. The word *Tahiyaus* never takes the plural particle at Behistun; but we find *Tahiyaus-pa-na* in the introductory passage of all the small inscriptions.

I. 2. hiak Tariyavaus Ko ³nanri:—Hu Attata Vistaşba, hiak
 and Darius king says:— my father[was]Hystaspes, and
 Vistaşba Attari Irsamma, hiak Irsamma At'tari Arriyaramna,
 Hystaspes' father [was] Arsames, and Arsames' father [was] Ariaramnes,
 hiak Arriyaramna Attari Chispis, hiak Chispis Attari
 and Ariaramnes' father [was] Teispes, and Teispes' father [was]
 A'kkamannia.
 Achæmenes.

I cannot find any analogy for the distinction between *attata*, "my father," and *attari*, "the father," or "his father." The word is found as well in Scythic as in Indo-Germanic languages. See the Gothic *atta*, Magyar *atya*, &c.

I. 3. hiak Tariyavaus Ko nanri:—yuvempainraskimas Niku
 and Darius king says:— therefore we
 Nimanş Akkamaunnişiya tiri'vaniun, sâsata karata turi Sacho
 race Achæmenian we are named, old time from descended
 but, hiak sâsata karata turi Nimanş Nikavi Ko-fa.
 we are, and old time from race our [have been] kinga.

We find *yuvempainraskimas*, with a little variation of orthography, in I. 38, II. 70, III. 78; *yuvempa*, in I. 19, renders the Persian *awatha*, "thus;" perhaps also in III. 67 and 78. *Yuvempa* may be a dative case, meaning "in that way," and the whole phrase will be "according to that way." In I. 38 and in III. 78, we have *yupainraskimmas*.

I. 4. hiak 'Tariyavaus Ko nanri:—VIII Ko-fa Nivanš Hu-nīna
and Darius king says:— 8 kings [of] race of me
appuka Ko-vas marris, Hu IX-immas Ko-vas yutta, sa⁶vak-mar
formerly kingdom held, I the ninth king am, from old time
Niku Ko-fa hut.
we kings are.

Oppert renders *duvitātarnam*, which is the Persian equivalent for *savak-mar*, "in two lines." The reading is ingenious and probable; but the postposition *mar*, "from," and the initial *sa*, found also in the word *sassa*, "old," and *sacho*, which may be "descended," rather corroborate the meaning given by Colonel Rawlinson, which I have followed.

I. 5. hiak Tariyavaus Ko nanri:—šauvin Auramasta-na Ko-vas
and Darius king says:— by favour of Ormazd king
Hu yut⁶ta; Auramasta Kovas Hu tunis.
I am; Ormazd kingdom to me gave.

Here we have the frequently-repeated phrase *šauvin Auramasta-na*, "by the grace of Ormazd." I am unable to analyse *šauvin*; *vin* in Zyrianian means "force," "power," but this would suppose a preposition, which seems foreign to the language; it is however countenanced by the Babylonian version.

The same form, *Kovas*, being used for the word "kingdom," and for the factive case of "king," the last phrase might be thought doubtful, but a comparison with I. 20 will show that the rendering is correct.

I. 6. hiak Tariyavaus Ko nanri:—Tahiyans ye appo Hu-nīna
and Darius king says:— provinces those which of me
ti¹⁰risti; šauvin Auramasta-na Hu Ko-vas appinī yutta:—Parsan,
are called; by grace of Ormazd I king appointed am:— Persia,
hiak Afartī, hiak Bapilu-fa, hiak Aš¹¹šura-fa, hiak Arbaya-fa, hiak
and Susiana, and Babylonia, and Assyria, and Arabia, and
Mutšariya-fa, hiak Angauš-fa, hiak Sparta-pa, hiak Iyan¹²na-fa,
Egypt, and maritime provinces, and Sparta, and Ionia,

hiak Mata-pa, hiak Arminiya-fa, hiak Kaṭbaṭukas-pa, hiak
 and Media, and Armenia and Cappadocia, and
 Parthuva-pa, hiak *Sarrainkas-pa*, hiak ¹²Ariya-fa, hiak Varasmiya-fa,
 Parthia, and Zarangia, and Aria, and Chorasnia,
 hiak Bakšis, hiak Suktāspa, hiak *Barrupamithana*, hiak ¹⁴Sakka-pa,
 and Baktria, and Sogdia, and Gandara (?), and Sacia,
 hiak Thaṭtakus, hiak Arrauvatis, hiak Makka; van r ʔar no *XXIII*
 and Sattagydia, and Arachotia, and Mecia; in all 23

Takiyaus.

provinces.

It is singular that nearly all these provinces are put in the plural number, as though the language had no local names for them; will this be a clue to the locality of the people who spoke the language, and who would probably have a name for those provinces only which they were acquainted with, calling the others merely by the names of the inhabitants? Gandara appears to have the same name as in the Babylonian reading, *Parupamisana*, to judge from the space which the word filled, and the last group remaining; the orthography of this name is of course merely guessed at. The only peculiar appellation is that of Susiana, which is called *Afarti*, with the cerebral *f*, while the people are named *Afarti*; this peculiar name induces a suspicion that the language of some tribe dwelling in Susiana was the one under investigation. The discovery, by Colonel Rawlinson, of a number of Scythic inscriptions in that part of the Persian empire, corroborates this view; these inscriptions are much older than the time of Darius, are written in a different dialect, and with the Assyrian alphabet. The word *tiristi* is mutilated, but its repetition in a similar phrase in l. 15 makes it sure. I cannot analyse the closing phrase; it may be connected with *varrita*, "all."

I. 7. hiak ¹²Tariyavaus Ko nanri:—Tahiyaus ye appo Hu-nīna
 and Darius king says:— provinces these which of me
tiristi; sauvin Auramasta-na tās luba^{as} Hu-¹⁴nīna yuttās;
 are called; by favour of Ormazd ? subjection to me they made; tribute
 Hu-nīna kutis; appo Hu ap-tiriya, anuvas farvana *pa*
 of me they brought; what I to them said, by day and night that
yutta^{ns}.
 they did.

If I am correct in attributing the pluperfect meaning to the termination *ti*, the word *tiristi* should signify "they [or he] had called," but

the sense appears to be passive here; the lost word, meaning "tribute," may be *vannam*, as in vi. 14, but I do not quite understand that passage, nor am I sure about the correct division of the words. *Anu*, is perhaps "day;" we find the equivalent of "heaven" and "God," with the initial or determinative $\rightarrow\text{Y}$, and it is probable that "the day" would have such a distinction; we certainly find it whenever the day of the month is named, and it always precedes the monogram signifying "month," as well as the name of the month. I conclude therefore that it is suggestive of all words having a cosmical or celestial meaning.

I. 8. hiak Tariyavaus Ko nanri:—Tahiyaus ye ativa, Yoş-irra
and Darius king says:— provinces these in, the man
[ariki tartuka,] yufri ir ku¹⁶kti; [Yoş-irra arikkas,] yufri
pious, in retribution he him I cherished; the man who was impious, him
tartuka vial ea..... şauvin Auramasta-nanīna
in retribution greatly I punished; by favour of Ormazd
Tahi¹²yaus Hu-nīna kuktak; appo anka Hu-ikki-mar tirikka,
provinces of me cherished; what if by me was told,
yuvenpa yuttas.
that they did.

From the analogy of *kuktak*, l. 19, *kuktās*, III. 85, and *kuktainti*, III. 86, I should have made the equivalent of "I cherished," *kuktaya*, for the impression is barely visible; but in III. 81, *kukti* is perfectly distinct; for *tartuka*, see III. 64. I cannot venture to restore the lost passages. *Anka* may generally be translated "if," but joined to *appo* the word "whatsoever" will usually represent the sense most conveniently.

I. 9. hiak Tari²⁰yavaus Ko nanri:—Auramasta ye Kovas Hu
and Darius king said:— Ormazd this kingdom to me
tunis; hiak Auramasta piktī Hu-tās, kus Hu Kovas ye ²¹patu,
gave; and Ormazd helper to me was, while I kingdom this gained,
hiak şauvin Auramasta-na Hu Kovas marriya.
and by favour of Ormazd I kingdom possessed.

Patu is not clear on the impression, but the termination is probable; the word would be put for *patuva*, like *afpi* for *afpiya*. The restorations are obvious.

I. 10. hiak Tariyavaus Ko nanri:—ye appo Hu ²²yuttas,
and Darius king says:— this [is] what I did,

šauwin Auramasta-na, thap appo Ko-*vas* [or Ko-ra] tawa :
by favour of Ormasd, when that king I became :

Kanpuchiya *yesi*, *Kuras sakri*, *Nikavi Nivans*, *yufar* ²nen am
Cambyses called, Cyrus' son, our race, before





hiak hika, Kanpuchiya *yufri Bartiya* ir *afpis*; thap Kanpuchiya
? Cambyses he Bardes him killed; when Cambyses

Bartiya ²ir *afpis*, Tassunos inni *tarnas appo Bartiya* *afpika*; *vasni*
Bardes him killed, the people not knew that Bardes was killed; then

Kanpuchiya *Mutšariya-fa-ikki* *poris*; ²*vasni* Tassunos *arikkas*,
Cambyses to Egypt went; then the people became wicked,

kutta titkimas Tahiyaus-ativa *irsikki yuttās*, *kutta Parsan-ikki*,
and falsehood provinces in greatly was, both in Persia,

²⁵*kutta Mata-pa-ikki*, *hiak kutta Tahiyaus appo tahie-ativa*.
and in Media, and also provinces the others in.

In l. 22 I have restored *šauwin Auramasta-na*, the space being just sufficient, and the last two letters visible, though the expression is not found in the Persian; the space following is too large for  only, but the word concluding with  must be  . The expression is quite different from that of the fifteenth Paragraph, although, oddly enough for the sense of the inscription, both the Babylonian and the corrected Persian (see Notes, p. ii) concur in reading "after I became king," in both cases. The few letters lost at the beginning of l. 23 comprise all that there could have been to represent the Persian lines 29 and 30, of which the translation is "he was king here before me; the brother of this Cambyses was named Bardes; he was of the same father and mother with Cambyses." The phrase in l. 24, "the people knew not that Bardes was slain," corrects the first translation given by Colonel Rawlinson, and ascertains the value of the Persian word *azada*, which, here at least, must mean "unknown." In a very difficult passage of the Naksh-i-Rustam Inscription, this word occurs twice, and the certainty of its meaning here may help us in finding the sense of that passage. *Arikkas*, in l. 24, is restored doubtfully from the analogy of *arikka am*, in III. 79.

I. 11. *hiak vasni Rween* kir Makus, ²Gaumatta *yesi*, *yufri*
and then man one Magian, Gomates named, he
.....naas > Karaś > Arakkašarris *yesi*, *avi ivaka*, XIV *annam*
Pisiaschadia in mountain Aracadres named, there he arose, on the 14th day

ammonš an-vikanna ²s-na *pirka*, *yechitu ivaka*; *yufri Tassunos Apir*
of the month Viyakhna then, thus he arose; he to people (?)

"he was killed." We may here remark that this paragraph does not commence with the usual formula "Darius the king says." By-and-bye we shall find several of the shorter paragraphs in the same case, especially towards the close of the Inscription.

I. 12. hiak Tariyavaus Ko nanri:—*Kovas yupa* appo Gaumata²ta
and Darius king says:—kingdom that which Gomates
akka Makus Kanpuchiya evitusti, Kovas am neni karata turi
the Magian Cambyses had deprived, kingdom former time from
Nivans *Nikavi* tās; vasni ²Gaumatta akka Makus Kanpuchiya
family our was; then Gomates the Magian Cambyses
evitus, kutta Parsan, hiak kutta Mata-pa, hiak kut²ta Tahiyaus
deprived, both Persia, and also Media, and also provinces
appo tahie, yufri evitusa tivan e, yufri Kovas *yupipa-na marris*.
the others, he having seized, (?) he kingdom of them held.

The restorations in lines 32 and 33 are obvious, and the construction of the whole paragraph is easy, with the exception of the few words near the close, which I cannot understand. The last letter is $\geq \vee \vee$ certainly, and the preceding letter is $\vee \vee \vee <$ probably; there is just room for *yupipa-na*, "of them." The horizontal wedge, meaning "in" or "with," may have preceded *Nivans* in l. 33.

I. 13. ²hiak Tariyavaus Ko nanri:—*Yoş-irra-inna senrik inni*
and Darius king says:— of the men there was not
Roven kir Parsarra, in²ni Mata, hiak inni *Nivans* *Nikavi*, akka
man one Persian, nor Mede, and not family our, who
Gaumatta Makus Kovas evitus; Tassunos-vas ²fasi;
Gomates Magian kingdom would deprive; the State feared him;
Tassunos irsikki afpis Akkapa sassa Bartiya ir tarnasti,
the people utterly he killed who the former Bardes him had known,
yupainraekimmas Tassunos irsi²kki afpis, hini Hu ir tarnampi
therefore the people utterly he killed, let not me it make known
appo Hu inni Bartiya akka Kuras Sakri; hiak Akkari aski
that I not Bardes who Cyrus' son; and every one move(?)
²Gaumatta Makus thubaka inni lulwak, kus Hu şinnigat; vasni
Gomates Magian about(?) not dared, until I came; then
Hu Auramasta aftiya⁴vanyahi, Auramasta pikti Hu-tās, şauvin
I Ormazd adored, Ormazd helper to me was, by favour

Auramasta-na, X annan anmong an-bagayatis-na "pirka, yechitu Yoş
 of Ormazd, 10th day of the month of Bagayadish then, thus men
 ariki-fa itaka, Hu Gaumatta akka Makus ir aspiya, kutta "Yoş
 faithful with, I Gomates the Magian him killed, and men
 appo atarrivan nitavi yupo-fa pi itaka, > Yuvanis > Siktukvatis yesi
 who followers his chiefs who with, at a fort at Siactahotes named
 > Nissaya "yesi, > Tahiyahus Mata-pa-ikki, avi ir aspiya, Kovas
 at Nissaa named, at province in Media, there him I killed, kingdom
 Hu evitnua, şauvin Auramasta-na "Hu Kovas yutta, Auramasta
 I took away, by favour of Ormazd I king was, Ormazd
 Kovas Hu şunis.
 kingdom me gave.

The analysis of this paragraph is pretty clear, where the text is not deficient. The clause beginning l. 38, which appeared doubtful in the Persian, is here consistent and probable: "he utterly destroyed the people who had been acquainted with the former Bardes; and the reason why he destroyed them was 'that they may not make it known (said he) that I am not Bardes, the son of Cyrus.'" The form *tarnampi* occurs in no other passage, but it should be a causative; the letter preceding *pi* is imperfect, but hardly doubtful. May the construction be *hini Hu ir tarnam-pi*, "let me not make it known to any, that," &c. the *tarnam* recovering the usual Ugrian *m* in the first person singular before *pi*, which is dropped when final? The necessity for making the verb causative is against this construction, to say nothing of the useless *pi*. If we might read *tarnaspi*, it would be "lest there be any who may know me," though even then we do not know what to do with *r*. With the exception of the clause immediately following, where *aşki*, *thubaka*, and *lulwak* are of uncertain import, all the rest is perfectly clear.

I. 14. hiak Tariyavaus Ko nanri:—Ko*vas appo Nivans
 and Darius king says:— kingdom which family
 Nikavi ikkimar kutkaturrakki, yupa Hu nogaya; Hu > *Kata-va*
 our from was taken away, that I brought[back]; I in place
 passankita; thap appo "anka appuka-ta, yechitu Hu anchiyan
 established; as what if before soever, thus I did; I visitation
 annappatna yutta appo Gaumatta akka Makus "tharista, hiak Hu
 Temples of Gods made which Gomates the Magian abolished, and I
 Tassunos-na chotás hiak aş, hiak Kartas, hiak > Alyes-pachiva
 the people's and and to the families

appi lu.....^{ya} appo Gaumatta akka Makus ev-ap-ṭusta; hiak Hu
 those I restored which Gomates the Magian took from them; and I
 Tassunos > Kaṭa-va passankita, kut^{ta} Parsan, hiak kutta Mata-pa,
 the people in place established, both Persis, and also Media,
 hiak kutta Tahiyahus appo tahieta, yechitu, thap ^{ya} appo anka
 and also provinces the others thus, as what if
 appuka-ta, Hu appo kutkaturrakki, yupa nogaya; ṣauvin
 before soever, I what was taken away, that I brought back; by favour
 Auramasta-na, ye Hu yut^{ta}, Hu baluikvassa kus > Alyeṣ Nikavi
 of Ormazd, this I did, I laboured (?) until family our
 > Kaṭa-va passankita, yechitu thap appuka-ta; hi^{ak} Hu baluikvassa
 in place I established, thus as before soever; and I laboured (?)
 ṣauvin Auramasta-na appo Gaumatta akka Makus > Alyeṣ Nikavi
 by favour of Ormazd that Gomates the Magian family our
^{innī} kutkatur
 not might destroy.

Though the import of this paragraph is generally pretty clear, I am utterly unable to see my way grammatically through several clauses, either in the Persian or Scythic text; the Babylonian affords no further help than merely shewing that *anchiyan annappatna* means "temples of the gods:" or at least includes that phrase: it is known from other sources, that *annap* signifies "the gods." See also the Artaxerxes Inscription. The phrase > *Kaṭava passankita* represents *gāthwā avastāyam*, and it seems to prove that *gāthwā* cannot be equivalent to an adverb like "firmly," because it is transcribed and not translated, and is preceded by the mark >. A comparison with the root *āka* induces me to render *kaṭa* by "place," and to make *va* the usual locative postposition. Near end of l. 52, *thap* may be *anka*; the first character is invisible, the second may be >.

I. 15. hiak Tariyavaus Ko nanri:—ye appo Hu-ikki-mar
 and Darius king says:—this what by me
 yuttak, tha^{ap} appo anka appuka Kovas marriya.
 was done, when that if before kingdom I seized.

The expression *thap appo anka appuka*, is the same as that which represents "as it was anciently" in the preceding paragraph; the indefinite *ta* alone, represented by the Persian *chiya*, being added in the former case; the general sense of the inscription shows that the meaning must be "when first I seized the kingdom," but I confess I

should have understood the words to mean "before I seized the kingdom."

I. 16. hiak Tariyavaus Ko nanri:—thap Gauma^{ta} akka
and Darius king says:— when Gomates the
Makus Hu afpiya, vasnĭ Aşşina yesi, Afartura, Ukbatarranma
Magian I killed, then Atrines named, a Susian, Upadarma's
Sakri, ⁹yufri Afartikki ivaka nanri: Ko-vas Afartĭ-pa Hu yutta-^{va}ra;
son, he in Susiana rising said: king to Susiana I am;
vasnĭ Afarti-fa Hu⁹ikki-mar pafati-fa-ba, Aşşina yufrikka poris;
then Susians from me revolting, to Atrines went;
vasnĭ Ko-vas yufri Afarti-fa⁹na yuttās; hiak kutta Ruven kir
then king he of the Susians became; and also man one
Nititpaal yesi, Bapilurra, Ahinahira Sa⁹kri, yufri > Bapilu ivaka,
Natitabirus named, a Babylonian, Aensara's son, he in Babylon rising,
Tassunos-pa yechitu appir tiraska nanri: Hu Nabukutarru^asar, tar
to the people thus them lying said: I Nabuchodrossor, son
nabpunĭta ^{va}ra; ^{va}snĭ Tassunos appo Bapilu-fa varrita
of Nabonidus am; then people the Babylonians all
Nititpaal yufrikki ^aporis; vasnĭ Bapilu-fa pafatifa, Kovas appo
to Natitabirus went; then Babylonians revolting, kingdom which
Bapilu-fa-pa yufri marriis.
to the Babylonians he possessed.

The above paragraph barely requires a word of comment. The distinction between *Afarti* "Susiana," *Afarti* "the Susians," and *Afartu* (last syllable doubtful) "a Susian," is well seen. With regard to *appir* in l. 60, see Par. XI., l. 28.

I. 17. hiak ^aTariyavaus Ko nanri:—vasnĭ Hu yutro
and Darius king said:— then I a messenger(?)
Afartikki nogaya, Aşşina yuf^ari marrika, rabbaka, Hu-ikki nogaik;
to Susiana sent, Atrines he taken, bound, to me was brought;
vasnĭ Hu ir afpiya.
then I him killed.

Yutro is certainly allied to *yuttu* "sent." This paragraph exemplifies the use of the final vowel in *marrika* and *rabbaka*.

I. 18. hiak Tariyavaus Ko na^anri:—vasnĭ Hu Bapilu poriya,
and Darius king says:— then I Babylon went,

Nititpaal yufrikka akka nanri, Hu Nabukutarrusar; ^{as}Tassunos
to Natitabirus who says, I [am] Nabuchodrossor; army
appo Nititpaal yufri-na, > Hiš Tikra yesi, avi *pathafati*, > Tikra
which of Natitabirus, at river Tigris named, there had arrived(?), Tigris
> Senri^{at} marris, kutta . . taven . t hešna; vasni Hu Tassunos-vas
shores(?) held, and sent ships(?); then I the army
kamas . . nika appo poke hi^{as}apvaš-va appin pašu . . . po
on boats placed(?) which enemy in difficulty(?) them I placed(?)
poke karraš ir pafalufaba, Auramasta pikti Hu-tas, ša^{as}uvin
enemy ? him having attacked(?), Ormazd helper to me was, by favour
Auramasta-na Tikra antugahutta, avi Tassunos appo Nititpaal yufri-na
of Ormazd Tigris we crossed, there army which of Natitabirus
afpi^{as}ya; XXVI annan anmonš an-aššiyatiyas-na pirka, yechitu
I destroyed; 26th day of the month of Atriyāta then, thus
saprakimmas yuttayu^{at}t, ir avi afpi.
the battle we fought, him there I slew.

From l. 66 to 68 the construction is obscure, and some characters occur which are not found elsewhere. This, combined with the mutilation of both the Persian and Scythic texts, prevents my attempting an explanation; all the rest is clear. Observe the expression "a river called Tigris," as though written by a people to whom the river was unknown. The clause at the end, "I slew him there," is not found in the Persian; and from the omission of the termination *ya*, and the way in which the lines are inscribed on the rock, it looks as though the engraver considered the following word, which begins a new paragraph, to be merely a continuation of the same clause.

I. 19. hiak Tariyavaus Ko nanri:—vasni Hu Bapilu poriya;
and Darius king says:— then I Babylon went;
^{as}batar > Bapilu inbalu-va pugatta, > Afš > Šatšan yesi, > Hufarata
when(?) Babylon town(?) in I arrived, town Zazan named, Euphrates
astavatak a^{as}vi Nititpaal yufri akka nanri, Hu Nabukutarrusar,
along(?) there Natitabirus he who said, I [am] Nabuchodrossor,
Tassunos itaka, Hu rutās ši^{as}nnik, saprakimmas yuttivanra; vasni
people with, me against came, the battle about to fight; then
saprakimmas yuttayut, Auramasta pikti Hu-ta^{as}, šauvin
the battle we fought, Ormazd helper to me was, by favour
Auramasta-na Tassunos appo Nititpaal yufri-na avi afpiya; II annan
of Ormazd people who of Natitabirus there I killed; 2nd day

anmons⁷ "an-anavakkas-na pirka, yechitu saprakimmas yuttayut,
 of month Anamaka then, thus the battle we fought,
 Tassunos appo Nititpaal-na Hu afpi irsik⁷ki, hiak apin hiş-va
 people who of Natitabirus I destroyed . utterly, and them in river
 puttana, hiş ye-va sathak.
 I drove, river in this were drowned. (?)

Several words at the beginning of this paragraph are not found elsewhere:—*batar*, *inbaluva*, *pugatta*, *satavatak*, *rutās*; all these are of course rendered conjecturally only. The name of the Euphrates is very faint, but I think the first three syllables are certain. The last clause is obscure. It will be noticed that the Scythic version has transposed the closing sentences of this paragraph.

II. 1.* hiak Tariyaus Ko nanri:—vasnī ⁷Nititpaal yufri
 and Darius king says:— then Natitabirus he
 Talni-fa ariki-fa itaka putraska, . . . > Bapilu lufaba; vasnī Hu
 horsemen faithful with marching, to Babylon retiring; then I
⁷Bapilu-*ikki* pugatta; şauvin Auramasta-na, kutta > Bapilu
 to Babylon approached; by favour of Ormazd, and Babylon
 marriya, kutta Nititpaal yu⁶fri *pinti*; vasnī Nititpaal yufri Hu
 I took, and Natitabirus . . . ; then Natitabirus I
 > Bapilu ir afpiya.
 in Babylon him killed.

The name of Darius in the first line of this paragraph is incorrectly engraved. I cannot restore the word which precedes *Bapilu* in l. 78; there is room for *batar*, as in l. 72, but I do not know its meaning; the word following is very doubtful. The other restorations are probable. The horizontal > before Babylon, in l. 79, is the only one I remember in all the inscription, before the name of a place, which does not effect the meaning of "at" or "in." The word at the beginning of l. 80, which I have very doubtfully made *pinti*, may be the usual *marriya*; the paper impression shews only undecided traces. The *hiak* in outline at the end of the lithographed facsimile, is inserted from the supposition that this column closed in the same way as the second. The paper cast towards the close is so much mutilated that it is not possible to say whether this was the case or not.

* We now come to the part which corresponds with the second Persian column.

COLUMN II.

We now come to the second Scythic column, corresponding with nearly all the second and part of the third Persian columns. This portion of the inscription is almost perfect; scarcely a single letter is illegible or doubtful. It happens unfortunately that this is the column which contains all those statements of marches and fights, which abound in repetitions; and these are so precisely alike in all their clauses, that they might be restored in most cases with absolute confidence, however mutilated the text might be. It is impossible to avoid a feeling of regret that it is the second and not the third column which is so well preserved: there are so many varied constructions in the closing paragraphs of the inscription, including the different persons and tenses and moods of the several verbs used, that a complete Scythic version there would have given a much deeper insight into the structure of the language than we are now likely to attain. But that column is deplorably damaged; and the Persian text also is most defective in the part corresponding to it. The second column, which we are about to enter upon, is free from this cause of uncertainty, and we have no other difficulty than ignorance of the language.

II. 2. hiak 'Tariyavaus Ko nanri:—kus Hu > Bapilu sennigat,
and, Darius king says:— whilst I in Babylon was,

appi Tahiyau's Hu ir-pafatifa; Parsan, hiak Afartî, hiak Mata-pa,
these provinces against me rebelled; Persia, and Susiana, and the Medes,
hiak Assura, hiak Mu^tçariya-fa, hiak Parthuva-fa, hiak Markus-pa,
and Assyria, and the Egyptians, and Parthians, and Margians,
hiak Thattakus, hiak Sak^ka-pa.
and Sattagdia, and the Saccæ.

In the expression *Hu ir-pafatifa*, the letter *r* is added rather to the second word than to the first, because the termination *fa* is apparently participial without such addition, as in lines 7 and 11,* and because *Huir*, as a case-form of *Hu*, is not found elsewhere; unless the clause in I. 39 should be so construed.

II. 3. hiak Tariyavans Ko nanri:—Ruven kir Martiya yesi,
and Darius king says:— man one Martius named,

* A paragraph mentioning the frequent participial signification of neuter verbs terminating in *ka* and *fa*, such as *ivaka* and *pafatifa*, when unaccompanied by the pronoun *ir*, was inadvertently omitted in p. 88.

Issan'pakris Sakri, > Afš > Kukkannakan yesi, Parsan-ikki, avi
 Sisicria' son, in a town Cyganaca named, in Persia, there
 artak; yufri A'farťikki ivaka, > Tassunos-pa yechitu ap-tiris,
 he dwelled; he in Susiana rising, to the people thus them addressed,
 nanri:—Hu Immannis Ko Afarťi-na va'ra;
 he said:— I Imanes king of Susiana am;

II. 4. hiak Hu avasir Affarti inkanna sennigat, vasni Affarti-fa
 and I when Susians friendly(?) was, then Susians
 Hu-ikki-mar fanifa, Mar'tiya yufri akka irsarra appini
 by me influenced(?), Martius he whom leader appointed
 tiristi, ir marrissa, ir afpis.
 they had named, him seizing, him they killed.

The word *avasir* in l. 7 is made a conjunction, because followed by *sennigat*, a verbal form generally found after a conjunction; and the Persian equivalent *adakiya* may be allied to अद्य; the Y— as a component part of the word is probably connected with the same syllable in *vasni* "then," and *vasisin* "after." The fourth paragraph, like the eleventh of Column I., begins without the usual formula; we shall find this occur frequently. The word which I have read *fanifa* may be *tanifa*, as in vi. 14.

II. 5. hiak Ta'riyavaus Ko nanri:—Ruven kir, Fruvartis
 and Darius king says:— man one, Phraortes
 yesi, yufri > Mata-pa-ikki ivaka, ¹⁰Tassunos-pa yechitu ap-tirissa
 named, he among the Medians rising, to people thus addressing them
 nanri:—Hu Saťarrita, Nimanš Vakstarra-na nima¹¹nki vara; vasni
 said:— I Xathrites, family of Cyaxares descended am; then
 Tassunos Mata-pa appo > Hu remanni, yupipa Hu-ikki-mar
 people Medians who with me at home, they from me
 pafatifa, yu¹²frikki poris; Mata-pa-ikki Ko-vas yufri yuttas.
 revolting, to him went; in Media king he became.

Nivanki is probably connected with *Nivans*, notwithstanding the difference of the first syllable; the root *nem*, "to generate," still exists in Magyar. I have no clue to the etymology of *remanni*, the first syllable being an unknown sound, and the Persian text lost; but the Babylonian version here, and a comparison of this passage with a corresponding one in III. 3, where the Persian text is clear, shew a connection with "house" or "home." Observe the locative > before *Hu*, meaning "with me."

II. 6. Tassunos Parsan hiak Mata-pa Hu-ta¹³s, arikki senri;
 People Persian and Medes to me were, faithful they were;
 vasnī Hu Tassunos Mata-pa-ikki tifapa taven; Viṭarna yesi,
 then I people to the Medians envoys sent; Hydarnes named,
 Parsar kir, Hu ¹⁴Lubaruri, yufri Irsarra appinī ir yutta; yechitu
 Persian one, my subject, him leader appointed him I made; thus
 ap-tiriya: viṭas, Tassunos Ma¹⁵ta-pa akka-pa Hu-nīna innī
 to them I said: go, people Medes who of me not
 tirivan pi, yupi-pa afpis vanka: vasnī Viṭarna Tassunos itaka
 are named who, them slay ? then Hydarnes people with
 Mata-pa-¹⁶ikki thak; thap Mata-pa-ikki ir-porik, > Afš > Marus
 to Media went; when to Media he went, at a town Marus
 yesi, > Mata-pa-ikki, avi saprak¹⁷immas yuttās; akka
 named, in Media, there the battle they fought; he who
 Mata-pa-na irsarra avāsir innī arir, Auramasta pikti Hu-ta¹⁸s,
 of the Medians [was] leader when not ? Ormazd helper to me was,
 šauvin Auramasta-na Tassunos appo Hu-nīna Tassunos appo
 by favour of Ormazd people which mine People which
 Patifa-na irsikki afpis; XX¹⁹VII annan anmonš an-anavakkas-na
 of rebels utterly destroyed; 27th day of month Anamaka
 pirka, yechitu saprakimmas yuttās; vasnī Tassunos appo Hu-²⁰nīna
 then, thus the battle they fought; then people which of me
 aški innī yuttās, Tahiyahus > Kämpattas yesi Mata-pa-ikki, avi
 move(?) not made, province Campada named in Media, there
 šatis, ²¹kus Hu šinnigat Mata-pa-ikki.
 remained, until I should go to Media.

Tifapa, in l. 13, is probably used as an explanatory complement to the verb *taven*. *Irsarra*, "the leader," has the mark of distinction, because placed alone: when the word is combined with the name of a nation, as in l. 17, the distinctive mark is omitted, as though we should write "Leader" with a capital letter, and the same word in "army-leader" without the distinction. I have no idea of the meaning of *arir*, in l. 17, though it is just possible that it may be connected with *arta* "to stay;" the word does not occur again, and the Persian is lost. The date is clearly the 27th, as in the Babylonian version. In the Persian it is indistinct.

II. 7. hiak Tāriyavaus Ko nanri:—Tataršis ²²yesi, Arminiyar
 and Darius king says:—Dadarshish named, Armenian
 VOL. XV. K

kir, Hu Lubaruri, yufri Hu Arminiya-fa-ikka ir yuttu; yechitu
one, my subject, him I to the Armenians him sent; thus

²²yo-tiriya: vita, Tassunos appo Patifa, Hu-nīna innī tirivan pi,
to him I said: go, people who rebels, of me not called who,

yupi-paafpis vanka; vasnī Tataršis ²⁴thak; thap Arminiya-fa-ikki
them slay ? then Dadarshish marched; when to Armenia

ir-porikka, Patifa fruitsarra-faba, Tataršis ir-va ²⁶šinnifa,
he went, rebels assembling, Dadarshish to him they went,

saprakimmas yuttiniunhuba; vasnī Tataršis saprakimmas ap-va-tās;
battle making; then Dadarshish battle them to made;

➤ Yuvanīs ➤ Šutša ²⁷yesi, Arminiya-fa-ikki, avi Auramasta piktī
at a town Zuza named, in Armenia, there Ormazd helper

Hu-tās, šauvin Auramasta-na Tassunos ²⁸appo Hu-nīna Tassunos
to me was, by favour of Ormazd people which of me people

appo Pati-fa-na irsikki afpis; VIII annan anmonš an-thurvar-na
which of rebels utterly destroyed; 8th day of month Thuravahara

pirka, ²⁹yechitu saprakimmas yuttās.
then, thus the battle they fought.

The syllable *va* in *ir-va*, l. 24, and *ap-va*, l. 28, looks very much like a postposition; in *Tataršis ir-va* and similar phrases, the syllable *ir* seems to be inserted in a similar way to *yufri*, as a vehicle for carrying the particle which marks the grammatical case; as in *Nitiipaal yufri-na*, I. 75. The clause in l. 25, "then Dadarshish fought a battle with them," is an addition to the Persian text.

II. 8. hiak sarak II-immas-va, Pati-fa fruitsarrapba, Tataršis
and time at the second, rebels assembling, Dadarshish

³⁰ir-va šinnifa, saprakimmas yuttiniunhuba; vasnī ➤ Afvarris ➤ Tikra
to him went, battle making; then at a fort Tigris

yeshi, ➤ Arminiya-fa-ik³¹ki, avi saprakimmas yuttās: Auramasta
named, in Armenia, there the battle they fought: Ormazd

piktī Hu-tās, šauvin Auramasta-na, Tassu³²nos appo Hu-nīna
helper to me was, by favour of Ormazd, people which of me

Tassunos appo Pati-fa-na irsikki afpis; XVIII annan anmonš
people which of rebels utterly destroyed; 18th day month

an-thurvar-na ³³pirka, yechitu saprakimmas yuttās.
of Thuravahara then, thus the battle they fought.

Observe the change of *fa* to *ap* in *fruitsarrapba*, l. 28, shewing the

similarity of sounds. Observe also, here and elsewhere, that there is no mark of distinction before the name of a month, and that probably the case-ending *na* belongs to the compound expression, "of the month Thuravahara."

II. 9. hiak sarak III-immas-va Pati-fa fruitsarra-faba, Ta³taršis
and time at the third rebels assembling, Dadarshiah
ir-va šinnifa, saprakimmas yuttiniunhuba; > Afvarris > Huiyama
to him went, battle making; at a fort Uhyama
yesi, Arminiya-fa-³ikki, avi saprakimmas yuttās; Auramašta
named, in Armenia, there the battle they fought; Ormazd
pikti Hu-tās, šauvin Auramašta-na Tassu³nos appo Hu-nīna
helper to me was, by favour of Ormazd people which mine
Tassunos appo Pati-fa-na irsikki afpis; IX annan anmonš
people which of rebels utterly destroyed; 9th day the month
an-thahikarrichis-na, ³pirka, yechitu saprakimmas yuttās; hiak
of Thahgarshiah, them, thus the battle they fought; and
vasnī Tataršis aški innī yuttās, Hun šatis, ³kus Hu
then Dadarshiah a move(?) not made, me waited, until I
Mata-pa-ikki šinnigat.
to Media should go.

The close of this paragraph will not bear out the restoration of Armenia proposed by Oppert in the Persian text, l. 48. *Aški* is explained on pure conjecture; see I. 39 and II. 20. The usual wedge is omitted before *Mata* in l. 37.

II. 10. hiak Tariyavaus Ko nanri:—Vaumis³sa yesi, Parsar kir,
and Daries king says:— Vomises named, Persian one,
Hu Lubaruri, yufri Hu tifapa Arminiya-fa-ikki taven, ye³chitu
my subject, him I envoy to the Armenians sent, thus
ye-tiri: viša, Tassunos appo Pati-fa, Hu-nīna innī tirivan pi,
to him said: go, people the rebels, mine not called who,
yupi-pa afpis vanka; vasnī ⁴Vaamissa thak; thap Arminiya-fa-ikki
them destroy; ? then Vomises went; when to the Armenians
ir-porikka, Patifa fruitsarra-faba, Va⁴umissa ir-va šinnifa,
he went, rebels assembling, Vomises to him went,
saprakimmas yuttiniunhuba; vasnī > Atchitu yesi, > Assuran,
battle making; then at Achidu named, in Assyria,

K 2

avi sap⁴rakimmas yuttās; Auramasta pikti Hu-tās, şauvin
 there the battle they fought; Ormazd helper to me was, by favour
 Auramasta-na Tassunos appo Hu⁴-nīna Tassunos appo Pati-fa-na
 of Ormazd people who mine people who of rebels
 irisikki afpis; XV annan anmonş an-anamakkas-na, pirka,
 utterly destroyed; 15th day of the month Anamaka, then,
 ye⁴chitu saprakimmas yuttās.
 thus the battle they fought.

The name *Atchitu* is lost in the Persian text, and in the Babylonian version also.

II. 11. hiak sarak II-immas-va, Pati-fa fruisarra-faba, Vaumis⁴sa
 and time at the second rebels assembling, Vomises
 ir-va şinnifa, saprakimmas yuttiniunyuba; vasnī > Batin
 to him they went, battle making; then in a province
 > Autiyarus yesi, avi saprakim⁴mas yuttās; Auramasta pikti
 Otiara named, there the battle they fought; Ormazd helper
 Hu-tās, şauvin Auramasta-na Tassunos appo Hu-nīna Tassu⁴nos
 to me was, by favour of Ormazd people who of me people
 appo Pati-fa irisikki afpis; anmonş an-thurvar puinkīa-va,
 who rebels utterly defeated; the month Thuravahara at end,
 yechitu saprakimmas yuttā⁴s; vasnī Vaumissa Arminiya-fa-ikki
 thus the battle they fought; then Vomises in Armenia
 şatis, kus Hu Mata-pa-ikki şinnigat.
 stayed, until I to Media should go.

In l. 45, we have *yuttiniunyuba*, instead of the usual *yuttiniunhuba*. *Puinkīa-va* does not occur elsewhere, but the Babylonian version proves the meaning, in accordance with Beufey's sagacious conjecture: the omission of the usual *annan* and *pirka* in l. 47, with the corresponding omission in the Persian, form the authority for dividing the words expressing the dates. The explanatory words "a district of Armenia," found necessary in the Persian text, after mention of the name of Otiara, are omitted in the Scythic; if this be not simply an accident, it may be inferred that the district was well known to the tribes by whom the language was spoken.

II. 12. hiak ⁴Tariyavaus Ko nanri:—vasnī Hu > Bapilu-mar
 and Darius king says:— then I from Babylon

luchogatta, Mata-pa-ikki poriya; thap Ma^{sa}-ta-pa-ikki in-porugat,
retired, to Media I went; when at Media I arrived,
➤ Afš ➤ Kunšarrus yesi, Mata-pa-ikki, avi Fruvartis yufri šiⁿⁱnnik
at a town Gundrusia named, in Media, there Phraortes he came
akka nanri, Hu Ko-vas Mata-pa-na yutta-vara, saprakimmas
who said, I king of Media am, battle
yuttivan-ra; vasñ saprakimmas yu^{ta}tayut; Auramasta pikti Hu-täs,
making; then the battle we fought; Ormazd helper to me was,
šauvin Auramasta-na avi Tassunos appo Fruvartis-na ^{su}Hu afpi
by favour of Ormazd there people who of Phraortes I destroyed
irsikki; XXV annan anmonš an-ašukannas-na pirka, yechitu
utterly; 25th day of the month Adukanna then, thus
saprakimmas yuttihut.
the battle we fought.

Observe the varied orthography of *yuttayut* in l. 51-2, and *yuttihut* at the close of the paragraph: see also the distinctive singular participle *yuttivan-ra* in l. 51. At the beginning of l. 53, in *afpi irsikki*, it appears that the usual terminating the syllable *ya* was unnecessary before a similar vowel. The name of the month in the same line is lost in the Persian, and does not occur elsewhere.

II. 13. vasñ ^{su}Fruvartis yufri Ţalni-fa arikki-fa itaka
then Phraortes he horsemen faithful with
putraska, ➤ Rakkan thak; vasñ Hu Tassunos-vas ^{su}mi taven;
marching, to Rhages went; then I the people mine sent;
avi-mar marrika, Hu-ikki nogaik; Hu yešim-vas, hiak tit-vas,
there-from he was seized, to me he was brought; I his nose, and tongue,
hiak peri vachchiya, reša^{su}kišuva; ➤ Chifa Hu-nīna-va rabbaka
and ears cut off, I smote him(?); court my in chained
marrik; Tassunos marpafa-ta ir chiyas; hiak vasñ ➤ Akvatana
he was held; people all him saw; and then at Ecbatana
at^{su}rur-va ir patu, hiak kutta Yoš appo ašarrivan nitavi yupo-fa
on cross him I put, and also men who followers his chiefs
pi, yupi-pa ➤ Akvatana ➤ Afvarri^{su}s-va varteš appinī sarakve-poka
who, them at Ecbatana in citadel ? put again enclosed(?)
appin pera.
them hanged(?).

Observe again the omission of explanatory words in the Scythic version, as in Par. XI; we have here a Median city, apparently well

known to the people who spoke this language, and which subsequently became the capital of the Parthian empire. In l. 56 I render *tit* "tongue" in preference to "lips," because it looks more like a singular than a plural, and the addition of *vas* is shewn by the following word *peri* to be unnecessary or unusual in the plural: this is however nothing more than a guess. *Reṭakituva* is likely to be a verb of the first person singular, but the signification is unknown; it may be a noun with the locative post-position. The last line is quite unintelligible to me: it contains a character not found elsewhere, and another which I read *kwe*, found also in the independent Inscription III., where it constitutes a part of the same uncertain word *kwe-poka*, probably a participle; the meaning may be "confined."

II. 14. hiak Tariyavaus Ko nanri:—Ru^oven kir Chissaintakma
and Darius king said:— man one Chitratakhma
yesi, > Assagartiya-ra, yufri Hu-ikki-mar pafaraska, Tassunos-pa
named, a Sagartian, he from me revolting, to the people
yechitu ap^o-tiris nanri: Ko-vas Hu yutta, Nivaṣ Vakṣtarra-na
thus them addressed said: king I am, family of Cyaxares
nīman vara; vasnī Hu Tassunos Parsan hiak "Mata-pa tifapa
descended am; then I people Persian and Median envoy(?)
taven; Takmasbata yesi, Mata, Hu Lubaruri, yufri Irsarra
sent; Tachmaspates named, a Mede, my subject, him leader
appinī ir yutta, "yechitu ap-tiriya: viṭas, Tassunos appo
appointed him I made, thus them I addressed: go, people which
Pati-fa, Hu-nīna innī tirivan pi, yupi-pa afpis vanka; vasnī
rebels, mine not called who, them slay; ? then
Tak^omasbata Tassunos itaka thak; saprakimmas Chissaintakma
Tachmaspates people with marched; the battle Chitratakhma
ye-tās; Auramasta pikti Hu-tās, "sauvin Auramasta-na,
with him fought; Ormazd helper to me was, by favour of Ormazd,
Tassunos appo Hu-nīna Tassunos appo Pati-fa-pa irsikki afpis, kutta
people who mine people who to rebels wholly destroyed, and
"Chissaintakma ir marris, Hu-ikki ir nogas; Hu yeṣim-vas,
Chitratakhma him they took, to me him they brought; I his nose,
hiak peri vachohi, reṭakituva; > Chi^ofa Hu-nīna-va rabbaka,
and ears cut off, I smote him(?); palace mine in chained,
marrik; Tassunos marripafa-ta ir chiyas; vasnī > Arpara yesi,
he was held; people all him saw; then in Arbela named,
avi Hu atru^or-va ir patu.
there I on cross him I put.

Observe *nivan* l. 60: cf. with *nivan*ki, in l. 10-1. *Pati-fa-pa*, in l. 64, "to the rebels," in other instances *Pati-fa-na*. The *ta* in *marripa-fa-ta*, l. 68, is certainly the indefinite "soever," and the same in l. 58. I know not whether *atruirvairpatu* should be divided as *atru irva ir patu*, or *atruv-va ir patu*; in the former case *irva* will be like the *irva* in *irva-pinnifa*, so often repeated; see II. 24; my own opinion is rather in favour of the latter. That the meaning is "fixed on the cross," is shewn by the Babylonian version. The horizontal wedge before *Assagartiya*, in l. 59, is irregular.

II. 15. hiak Tariyavaus Ko nanri:—ye Hu Mata-pa-ikki
and Darius king says:—this I ; in Media
yatta.
did.

II. 16. hi^aak Tariyavaus Ko nanri:—Parthuvās-pa hiak
and Darius king says:— Parthians and
Virkanīya-fa Hu-ikki-mar pafati-faba, Fru^vvartīs-na tiriyaś;
Hyrcanians from me revolting, of Fruvartīs called themselves;
Viśtaśba Hu Aṭtata > Parthuvās senri, ir yufri Tassunos
Hystaspēs my father in Parthia was, him people
ir-vach^{ta}vassa pafati-fa; hiak vaśnī Viśtaśba Tassunos appo tavini
him forsaking revolted; and then Hystaspēs people who his
itaka thak; > Afš > Viśbaūṣatis "yes, > Parthuvās, avi
with marched; at a town Hyspaozatis named, in Parthia, there
saprakimmas Pati-fa ap-va-tās; Auramasta pikti Hu-tās,
the battle rebels against them fought; Ormazd helper to me was,
ṣauvin Auramasta-na Vi^{ta}śtaśba Tassunos appo Pati-fa afpīs
by favour of Ormazd Hystaspēs people who rebels destroyed
irīkki; XXII annan annomē an-viyakannās-na pirka, yēthitu
utterly; 22nd day of the month Viyakhna then, thus
sap^{ra}kimmas yuttās.
the battle they fought.

This paragraph is lost in the Persian, and I am unable to give a better translation than Colonel Rawlinson has proposed: in l. 69, *tiriyaś* is a new form, denoting probably a reflected sense (See p. 90). The passage in l. 69-70 is different in arrangement from any other in the inscriptions, and the word *vachtavassa* is a new one; compared with the same root in the last line of the Naksh-i-Rustam inscription, together with Colonel Rawlinson's reading of the corresponding

Persian word *avarada*, it will appear almost certain that the meaning given is correct. *Yufri* looks like the subject, and *Tassunos* like the object; but the plural verb *pafatifa* must show that *Tassunos* is the nominative case, and *ir* with *yufri* must make an accusative. The second *ir* probably makes *pafatifa* verbal, in spite of the intervening word. *Tuvi-ni*, in l. 70, must be identical with *ni-tavi*; but the transposition is curious.

III. 1. hiak Tariyavaus Ko nanri:—vasnĭ Hu Tassunos Parsan
and Darius king says:— then I people Persian
➤ Rakkan-mar Vista⁷⁴šba-ikki nogaya; thap Tassunos yupi-pa
from Rhages to Hystaspes sent; when people these
Vistašba-ikki ir-porifa, vasnĭ Vistašba Tassunos ⁷⁵yupi-pa itaka
to Hystaspes came, then Hystaspes people these with
thak; ➤ Afš ➤ Patikrabbana yesi, ➤ Parthuvās, avi
marched; at a town Patigrabana called, in Parthia, there
saprakimmas yuttās; Auramasta pikti Hu⁷⁶-tās, šauvin
the battle they fought; Ormazd helper to me was, by favour
Auramasta-na Vistašba Tassunos appo Pati-fa afpis irsikki;
of Ormazd Hystaspes people who rebels destroyed utterly;
I annan anmonš an-gar⁷⁷mapatās pirka, yechitu saprakimmas
1st day of month Garmapada then, thus the battle
yuttās.
they fought.

The only peculiarity observable in this paragraph is the omission of the genitive particle after the name of the month in l. 77.

III. 2. hiak Tariyavaus Ko nanri:—vasnĭ Tahiyahu⁷⁸s Hu-nĭna
and Darius king says:— then the province mine
ayuttafa; ye Hu Parthuvās yutta.
became; this I in Parthia did.

Compare this paragraph with the 15th, line 67; I should have expected a postposition after *Parthuvās*, or at least the mark denoting locality.

III. 3. hiak Tariyavaus Ko nanri:—Tahiya⁷⁹hns Markus
and Darius king says:— province Margiana

yesi Hu-ikki-mar pafati-faba, Ruven kir Frata yesi, Markus-irra,
 named from me revolting, man one Phraates named, a Margian,
 yufri ⁸⁰Ko appinī ir yuttās; hiak vasnī Hu Tataršis yesi, Parsar
 him king appointed him made; and then I Dadarses named, Persian
 kir, Hu Lubaruri, Saksabavana-vas > Ba⁸¹kšis yuttās, yutro
 one, my subject, [who] the satrap in Bactria was, envoy
 yufrikki nogaya; nanga: vitkinī, Tassunos appo Pati-fa Hu-nīna innī
 to him I sent; I said: go, people who rebels, of me not
 tirivan pi, ⁸²yupi-pa afpis nī vanka; vasnī Tataršis Tassunos itaka
 called who, them slay ? then Dadarses people with
 thak; saprakimmas Markus-pa ap-va-tās, Auramasta pikti
 marched; the battle Margians to them fought, Ormazd helper
⁸³Hu-tās, šauvin Auramasta-na Tassunos appo Hu-nīna Tassunos
 to me was, by favour of Ormazd people who mine people
 appo Patifa-na afpis irsikki; XXIII annan ⁸⁴anmonš
 who of rebels destroyed utterly; 23rd day of the month
 an-ašiyatīyas-na pirka, yechitu saprakimmas yuttās.
 Atriyatiya then, thus the battle they fought.

Pafati-faba, l. 79, is, I think, a plural form, notwithstanding its grammatical connection with a single province: but the word *Tukiyous* is almost invariably looked upon as a plural. In the same line *Markus-irra* appears to be singular (conf. III. 56), but the passage looks ambiguous here, as in the Persian text. We have "king" instead of "leader" in l. 80, and the form is *Ko* instead of *Ko-vas*. I cannot explain *nanga* nor *vitkinī*: the former word is clearly connected with *nanri*, and the latter with *vita* and *vitas*; nor does there appear any meaning in the syllable *nī* after *afpis* in l. 82: it cannot be supposed that there is any connection with *nivanki* of II. 10-1.

III. 4. hiak Tariyavaus Ko na⁸⁵nri:—vasnī Tahiyahus Hu-nīna
 and Darius king says:— then Province mine

ayuttafa; ye Hu > Bakšis yutta.
 became; this I in Bactria did.

With the exception of the name of the province, this paragraph is identical with the second: but we have the wedge of locality which was wanted there.

COLUMN III.

The third Scythic column, to which we are now arrived, is very much damaged, particularly on the left side, down the whole extent of which there is a wide band with hardly a letter visible. The mutilation was so great in the upper half, that Colonel Rawlinson did not take a connected impression, but contented himself with detached bits, which are here brought together. Luckily this part comprises the historical portion corresponding with the third Persian Column, and it may be generally restored with confidence. This is not the case with the lower half, corresponding with the fourth of the Persian Columns; where, as observed before, we have so many varieties of construction: our restorations in that part will be more sparing, and given with much less confidence.

III. 5. hiak 'Tariyavaus Ko nanri:—*Buven kir* Vistat̃a yesi,
and Darius king says:— man one Veisdates named,
➤ Afš Tarrahuva yesi, Ihutiyas yesi, ²*Parsan-ikki, avi artak*;
in a town Tarva named, Iotia named, in Persia, there he dwelled;
yufri sarak II-immas-va Parsan-ikki ivaka, Tassunos-pa
he time at the second in Persia arising, to the people
ap-tiris nat̃ri: Hu Barti²ya tar kuras-na; *vasñi Tustunos*
them addressing said: I [am] Bardes son of Cyrus; them people
Parsan appo Hu revanni ➤ *Ansat̃is*poka, yupi-pa Hu-ikki-mar
Persian who I at home(?) stayed(?) they from me
pafati²fa, yufrikki poris; Parsan-ikki Ko-vas yufri yuttas.
revolting, to him deserted; in Persia king he became.

The damaged bit in l. 3 is of uncertain signification in the Persian text; *sa* may be a part of *sat̃is* "stayed;" but this is very doubtful; and the wedge of locality placed before the uncertain character preceding *sa* adds to the unsatisfactory nature of the explanation here set down.

III. 6. hiak Tariyavaus Ko nanri:—⁵..... Hu
and Darius king says:— me
reva yu *Iu-ikki-mar* inñi pafati²fa, yupi-pa hiak Tassu²nos *Parsan*
with ? from me not revolting, them and the people Persian
hiak Mata-pa appo Hu-tas, yupi-pa tifapa taven; Artavartiya yesi,
and Median who with me, them envoys I sent; Artabardes named,

Parsar kir, Hu Lubaruri, 'yufri *Irtarra appini ir yutta*; *hiak*
 Persian one, my subject, him leader appointed him I made; and
tutta Tassunos Parsan *tahi ir-porik Mata-pe-ikki Hu-kik*; *hiak 'vasni*
 also army Persian another went to Media after me; and then
Artavartiya Tassunos itaka Parsan-ikki thak; thap Parsan-ikki
 Artabardes people with to Persis marched; when Persis
ir-porik, > Afš > Rakkan 'yesi *Parsan-ikki*, *avi*
 he reached, at a town Racha named, in Persis, there
Vistatša, yufri akka nanri, Hu Bartiya, tassunos itaka, ¹⁰ *Artavartiya*
Veisdates, he who said, I [am] Bardes, people with, Artabardes
ir-va šinnik, saprakimmas yuttivan-ra; *hiak vasni saprakimmas*
 to him went, the battle about to fight; and then the battle
yuttās; Auramasta ¹¹ *piktī Hu-tās, šauvin Auramasta-na*
 they fought; Ormazd helper to me was, by favour of Ormazd
Tassunos appo Hu-nīna Tassunos appo Vistatša-na afpis ir¹²sikki;
 people who mine people who of Veisdates destroyed wholly;
 XII *annan anmonš an-thurvar-na pirka, yechitu saprakimmas*
 12th day of the month Thuravahara then, thus the battle
yuttās.
 they fought.

At the beginning of this paragraph mention was probably made of some other Persian troops, which did not partake in the general revolt; but the passage obliterated is additional, and did not exist either in the Persian text or Babylonian version. The Persian town of Rácha, in l. 8, is not graphically distinguished from that of the Median Rhages in II. 54, an evidence that the language confounded the sonant and aspirate sounds in pronunciation; as there was an obvious mode of distinguishing the two in this case by substituting >EY< for Y>>Y, had there been any difference in the sound. In the Persian text the difference is well marked. I cannot fill up the space in l. 9, and the restoration at the commencement of l. 10 is uncertain. There is fair authority for all the other restorations.

III. 7. *hiak vasni Vistat¹³ta yufri Talni-fa ariki-fa itaka*
 and then Veisdates he horsemen faithful with
Pišiyawata putraska,ir-va poris; *avi-mar sarak Tassunos*
 to Pissicadatis marching, to him went; thence again people
yu¹⁴fri Artavartiya ir-va šinnifa, saprakimmas yuttivanra; > Afš
 him Artabardes to him went, the battle about to fight; in town

> Parraka yesi, avi saprakimmas yutta¹⁸; Auramasta pikti
 Parga named, there the battle they fought; Ormasd helper
 Hu-tās, şawin Auramasta-na Tassunos appo Hu-nīna hiak Tassunos
 to me was, by favour of Ormasd people who mine and people
 appo Vis¹⁴tatta-na irsikki apfi; VI annan ammonş
 who of Veisdates entirely destroyed; 6th day of the month
 an-garmapatās-na pırka, yechitu saprakimmas yuttās, hiak kut¹⁷ta
 Garmapada, then, thus the battle they fought, and also
 Vistatta yufri marriş, hiak Yoş appo aţarriwan nitavi yupo-fa pi
 Veisdates him they took, and men the followers his chiefs who
 marriş.
 captured.

The restorations in lines 13 and 14 are both somewhat uncertain,
 although there cannot be much doubt about the meaning of the para-
 graph; in the name of Parga in l. 14, the first letter may be >Y or
 >Y, the second is quite lost. The word *hiak* near the end of l. 15
 is quite irregular, and must be an error of the engraver.

III. 8. hi¹⁸ak Tariyavaus Ko nanri:—vāni Vistatta yufri hiak
 and Darius king says:— then Veisdates him and
 Yoş appo aţarriwan nitavi yupo-fa pi i¹⁸taka tţachis.....
 men the followers his chiefs who with ?

There is room at the beginning of l. 19 to restore the word *itaka*,
 and although apparently ungrammatical, it is justified by the example
 in l. 44-5. The name of the town *Uvadaidiya*, where the punishment,
 whatever it was, was inflicted, is omitted: there could hardly have
 been room for the word in the space left on the rock; though I have
 been tempted to look for it in the *tachis* which is perfectly clear on the
 impression. The indistinct >E might have been YE, and there
 is room for <, which would make the name *Uvatachis*; but as we
 should have to alter the Y of the Persian to >Y, and as the town
 would not be more easily identified under the name of *Uvadachis* than
Uvadaidiya, it is not very likely that my conjecture will be accepted.

hiak Tariyavaus Ko nanri:—ye Hu Parsan-ikki yu¹⁰tta.
 and Darius king says:— this I in Persis did.

This paragraph is not in the Persian text, but is found in the

Babylonian version as well as in this. The transactions were perhaps thought to be too well known among the Persians to require the usual closing formula to be appended in that language.

III. 9. hiak Tariyavaus Ko nanri:—Vistaṭṭa yufri akka nanri,
and Darius king says:— Veisdates he who said,

Hu Bartiya, yuf^{ri} Tassunos Arrauvatis *tifapa taven*; Yoṣ kir
I[am] Bardes, he people Arachosia had sent out; man one

Irsarra appinī ir yuttās, Vivana yesi Parsar^{ra}, Hu Lubaruri,
leader appointed him was, Vibannus named a Persian, my subject,

Saksabavana-vas Arrauvatis yuttās, yufrikki; yechitu ap-tiris:

the Satrap of Arachosia was, against him; thus he them addressed:

viṭas, Vivana ²afpis, kutta *Tassunos yupi-pa akka-pa Tariyavaus*
go, Vibannus slay, and people those who of Darius

Ko-na tirivan pi vara: vasnī Tassunos yupi-pa > ^{*}Arrauvatis
the king called who ? then people those to Arachosia

Vivana-ikki poris, akka Vistaṭṭa tifapa taven; > Afvarris
to Vibannus went, which Veisdates had sent out; at a fort

> Kappissakanis ^{*}yesi Arrauvatis-ikki, avi *saparakimmas yuttās*;
Capiscania named in Arachosia, there the battle they fought;

Auramasta pikti Hu-tās, sauvin Auramas^{ta}-na Tassunos appo
Ormazd helper to me was, by favour of Ormazd people who

Hu-nina Tassunos appo Patifa-na afpis irsikki; XIII annan
mine people who of rebels defeated utterly; 13th day

among an-anamakkas-na pi^rrka, yechitu *saparakimmas yuttās*.
of the month Anamaka then, thus the battle they fought.

There is a good deal of uncertainty about the grammatical condition of this paragraph, although the meaning is plain enough; the use of *Yoṣ* in l. 21, is uncommon; the impression is very faint, and the word may after all be *Ruven*. The pronoun *ir* before *yuttās*, in the same clause, is unintelligible to me, and I can only account for it by supposing an inadvertence on the part of the writer, who may have been misled by the frequent appearance of *ir* before the word *yuttās*, so like in sound to *yuttās*. I cannot account for the addition of *vara* to the usual formula in l. 23; the only difference between this and other similar cases is, that the speaker is here the third person, while he speaks elsewhere in the first person. *Arrauvatis* in l. 26 is an addition to the Persian text.

III. 10. *hiak sorač II-immas-va, Pati-fa fruirearra-faba,*
 and time at the second, rebels assembling,
saprakimmas Vivana ita^{ka}, > Batin > Kančuvata yesi, avi
 battle Vibannus with, in district Gandytia named, there
yuttās; Auramaata pikti Hu-tās, šanvin Auramaata-na Tassunos
 they fought; Ormazd helper to me was, by favour of Ormazd people
²appo Hu-nīna Tassunos appo Patifa-na affis irsikki; VII annan
 who mine people who of rebels destroyed utterly; 7th day
anmonš an-viyakannas-na, pirka, yechitu sap²akimmas yuttās.
 of the month of Viyahna, then, thus the battle they fought.

The formula which usually follows the assembling of the rebels is omitted in this paragraph, though inserted in the Persian text. The name of the district called Gadutava in the Persian text, appears on the rock under a very different form; I suspect the engraver left out a wedge in the first letter, making $\overline{\text{y}}\overline{\text{y}}\overline{\text{y}}$ instead of $\overline{\text{y}}\overline{\text{y}}\overline{\text{y}}\overline{\text{y}}$, and the word should have been "Kančuvata;" this would have been a fair representation of the name, and as such I have restored it.

III. 11. *hiak casni Ruven akka Tassunos-na irsarra Vistatša*
 and then man who people's leader Vistatša
ir yattāsti, yuf^{ri}ri Talui-fa arikki-fa itaka putraska thak;
 him had made, he horsemen faithful with marching went;
> Afvarris Irsata yesi, Arrauvatis, Irvael ²Vivana-na,
 to a fort Arsada named, of Arachosia, the dwelling-place(?) of Vibannus,
avi lufaba; casni Vivana Tassunos itaka casri ir-perik, hiak
 there he retired; then Vibannus people with following went, and
avi Ruven yufri akka Tas²sunos-na irsarra appinī yuttasti, hiak
 there man he who people's leader appointed had been, and
Yoš akka ašarri van nitavi yupo-fa pi, maurissa, appin afpi^a.
 men who followers his chiefs who, he took, and them he slew.

At the beginning, the word *yufri* or *kir* perhaps should have been restored after *Ruven*; there is ample space for it, as the paragraphs generally follow close, when the usual commencing formula is omitted. The word *Irvael*, l. 32, is not found elsewhere, and the phrase may mean "the dwelling place of Vibannus;" or "the property of Vibannus;" it is omitted in the Persian, and the Babylonian is lost. As Vibannus was Satrap of Arachosia, this is a probable meaning; and there are Ugrian analogies which may support the meaning suggested (see

Vocabulary). The word which I have read *casri* in line 32, is made *sauri* in the lithograph; the first character is very faint. I should decide at once for *casri*, but I fear there is no precedent for the word.

III. 12. *hiak Tariyavau Ko nanri*:—*vasni* Tahiyahus Hu-nina
and Darius king says:— then the province mine
ayuttafa; ye Hu > Arrau²²vatis yutta.
became; this I in Arachosia did,

This paragraph requires no remark.

III. 13. *hiak Tariyavau Ko nanri*:—*kus* Hu Parean-ikki *hiak*
and Darius king says:— while I in Persia and
Mata-pa-ikki senni²³gat, sarak II-imma²⁴va *Bapilu-fa pafatifa*;
in Media was, time at the second Babylonians revolted;
Bacon kir Arakka yesi, Arminiya-rkir, Aftita Sakri, ²⁵yufri
man one Aracus named, an Armenian, Haddita's son, he
> Afš > Tubanna yesi > *Bapilu ivaba, aci-mar yufri yeehitu*
at a town Dubafa named in Babylonia arising, from there he thus
tiraska Tassunos-pa ap-tiria, nanri: Hu Nabu²⁶kutarrusar, tar
lying to the people them he spoke, he said: I [am] Nabuchodrosar, son
nabunita; *hiak vasi Tassunos Bapilu-fa Hu-ikki-mar pafati-faba*
of Nabonidus; and then people Babylonian from me revolting,
Arakka yufrik²⁷ki peris; *hiak Bapilu yufri marri, Ko-vas*
to him Aracus deserted; and Babylon he captured, king
Bapila yufri yuttas.
of Babylon he became.

The uncertainty of the sound of the Persian >=Y renders the determination of the power of >= uncertain: I am inclined to make it *ev* or *am*; in the following line the Scythic nasal is distinct, in the name of the town which contains the only other example of the Persian >=Y.

III. 14. *hiak vasi Hu Tassunos Bapi⁴⁰lu-pa-fa taven*;
and then I people to Babylonia sent;
Vintaparna yesi, Mata, Hu Lubaruri, yufri Hu Irsarra appini
Intaphres named, a Median, my subject, him I leader appointed
ir yutta, ye⁴¹chitu ap-tiriya: *eitas, Tassunos Bapilu-fa akka-pa*
him made, thus to them said: go, people Babylonian who

Hu-nīna innī tirivan pi, yupi-pa afpis vanka; hiak vasnī
of me not called who, them slay; ? and then

V¹²ntaparna Tassunos itaka Bapilu poris; Auramasta pikti
Intaphres people with to Babylon went; Ormazd helper

Hu-tās, šanvin Auramasta-na Vin⁴taparna Bapilu marriś,
to me was, by favour of Ormazd Intaphres Babylon captured,

Hu-ikki Tassunos appin farpis; XXII annan anmons
to me the people them made prisoners; 22nd day of the month

an-markašanas-na, pirka, ye⁴chitu Arakka yufri akka nanri, Hu
of Markazana, then, thus Aracus he who said, I

Nabukutarrusar vara, marrik, hiak Yoš appo ašarrivan nitavi
Nabuchodrossor am, was seized, and men who followers his

"yupo-fa pi itaka, marrika, rabbaka, Hu sira; Arakka
chiefs who with, was taken, chained, on crosses(?) I placed(?); Aracus

yufri hiak Yoš akka-pa ašarri⁴van nitavi yupo-fa pi itaka,
he and men who followers his chiefs who with,

► Bapilu Hu-ikki-mar pafalufa.
in Babylon by me were slain.

The restorations in this paragraph may be considered hazardous, but the object of the whole paragraph cannot be doubtful. The month Markazana does not occur elsewhere, and it has a curious resemblance to the Jewish Marchesvan, which corresponds with our October or November; a probable epoch. *Hu-ikki* in l. 43, may have been *irsikki*, but the general meaning would not thereby be affected. The Babylonian version decides the rendering of the word which I have made *farpis* in the plate, though it may have been *parpis*, a word equally unknown to me. *Sira*, in l. 45, must certainly be a verb; I once supposed that it might be a postposition, meaning *coram*, and that the phrase may have been *hiak nogaik Hu-sira*, "and was brought before me;" but the other construction is more in accordance with the Van Inscription, No. xvi, where *sira* is *niyashtāyam*, and I think *siras* is *niyashtāya*.

IV. 1. hiak Tariyavaus Ko nan⁴ri:—ye Hu ► Bapilu yutta.
and Darius king says:—this I in Babylon did.

We have in this paragraph, which is repeated like a formula, another example of the localizing value of the horizontal wedge.

IV. 2. hiak Tariyavaus Ko nanri:—ye appo Hu yutta,
and Darius king says:—this [is] what I did,

► Palki⁴va şauvin Auramasta-na Hu yutta; yechitu Hu yutta;
always by favour of Ormazd I have done; thus I did;

XIX ► Pat yutta, şauvin Auramasta-na Hu appin ⁴aspiya,
in 19 battles I fought, by favour of Ormazd I them conquered,

hiak IX *Ko-fa Hu mauriya*; kir Gaumatta yesi, Makus, tiraska
and 9 kings I captured; one Gomates named, a Magian, lying

nanri, Hu Barti⁵ya tar kuras-na, yufri *Parsan pafatâs*; hiak
said, I [am] Bardes son of Cyrus, he Persia made rebel; and

Aşina yesi, Afar . ra, yufri Afarti-fa appin pafatâs¹sa nanri,
Atrines named, a Susian, he the Susians them making rebel said,

Ko-vas *Afarti-fa-na Hu yuttavara*; hiak Nititpaal yesi, Bapilu-rkir,
king of Susiana I am; and Naditabirus named, a Babylonian,

tiraska nanri, Hu Nabuku²tarrusar tar napunita, yufri Bapilu-fa
lying said, I [am] Nabuchodrossor son of Nabonidus, he Babylonia

pafatis; hiak Martiya yesi, Parsar-kir, tiraska naⁿri, Hu
made rebel; and Martius named, a Persian, lying said, I [am]

Immannis, Ko *Afarti-fa-na*, yufri Afarti-fa pafatâs; hiak Fruvartis
Imanes, king of Susiana, he Susians made rebel; and Phraortes

yesi, Mata, ti⁴raska nanri, Hu *Sathtarritta Nimans Vakstarra-na*
named, a Median, lying said, I Xathrites of the race of Cyaxares

vara, yufri Mata-pa apin pafatâs; hiak *Chi⁴ssaintakma* yesi,
am, he Medians them made rebel; and Chitratakhma named,

Assagartiya-ra, tiraska nanri, Ko-vas Hu yutta, Nimans Vakstarra-na
a Sagartian, lying said, king I am, of the race of Cyaxares

vara, yufri ⁴Assagartiya-fa pafatâs; hiak *Frata* yesi, Markus-irra,
am, he Sagartians made rebel; and Phraotes named, a Margian,

tiraska nanri, Ko-vas Markus-pa-na Hu ⁵yutta, yufri *Markus-pa*
lying said, king of the Margians I am, he the Margians

pafatâs; hiak *Vistatta* yesi. Parsar-ra, tiraska nanri, Hu
made rebel; and Veisdates named, a Persian, lying said, I [am]

Barti⁵ya, tar kuras-na, yufri *Parsan* appin pafatâs; hiak Arakka
Bardes, son of Cyrus, he Persia them made rebel; and Aracus

yesi, Arminiya-ra, tiraska nanri, ⁵Hu Nabukutarrusar tar
named, an Armenian, lying said, I Nabuchodrossor son

nabunita-na vara, yufri Bapilu-fa apin pafatâs.

of Nabonidus am, he Babylonians them made rebel.

The restorations are all probable, except perhaps in l. 48; in that
clause the Persian, according to Colonel Rawlinson's correction, as

given in his Notes, p. v, reads, "This was all done by the grace of Ormazd; and as the kings rebelled, I fought nineteen battles, and by the grace of Ormazd I won them, and took nine kings captive." I would have wished to restore in the damaged space some such phrase as *thap Kofa pafatifa, yechitu Hu*, but there was not room for it, so that I have left the words which I had at first inserted as a mere guess. The word *Palkiva* expresses here and elsewhere the phrase *hamahyáyá thrada*, of the Persian, but throws no light on the singular word *thrada*; it neither confirms nor refutes the conjecture of Oppert, who connects it with سال "a year." I have always been inclined, fancifully I admit, to connect the meaning with our English "thread," "the tale," "narrative." The word *Pat*, "battle," both here and in l. 60, may be *Pafar*; the preceding numeral looks like $\langle \text{Y} \rangle$ but I should suppose it must be $\langle \text{Y} \rangle$. One of the kings only, Atrines, is not mentioned as an impostor, but as he has elsewhere the usual *tiraska* attached to him, this is probably an inadvertence. The irregularity of the Scythic language, or its love of variety, is shewn in this paragraph; in the Persian text, all the clauses are constructed precisely upon the same model, as though by an official formula; but in the Scythic no two are exactly alike; in one case, that of Atrines, the expression is inverted, and at the close of all the others the clause "he made them rebel" is written variously *apin pafatàs*, *appin pafatàs*, *pafatàs* only, and once *pafatis*. This variety can be charged only to the unfixedness of the language. Remark the irregularity of the orthography of Nabonidus in l. 52, where the engraver has written the word phonetically, instead of using the ordinary ideograph $\Rightarrow \text{Y}$ for Nebo.

IV. 3. hiak Ta^ariyavaus Ko nanri:—*Appin ye IX* Ko-fa
and Darius king says:— These [are] 9 kings
appo Hu pat ye ativa mauriya.
whom I battles these in captured.

The restoration of *appin* is doubtful, the space is greater than wanted for the word, and the perpendicular wedge, quite visible, is unusual before *appin*.

IV. 4. hiak "Tariyavaus Ko nanri:—Tahiyans ye appo
and Darius king says:— provinces these which
pafatifa pi; appi titkimas appin pa^afatàs, appo appi
rebelled which god of lies them made rebel, that they

.....ta..... fatifa; hiak vasuī Auramasta karpi Hu-nūna va
 the empire should subvert; and then Ormazd hand my in
 appin "yuttās; thap anīrachitu yechitu appin yutta.
 them gave; as I desired thus them I did.

I feel certain that *appi*, in l. 61, means "a false god," even without the addition of *tītkimas*: it is the word used for the gods worshipped by the Persians, read *annappi* without the determinative 𐎶𐎵, which means "celestial," occurring as it does before, or a constituent part of the words meaning "heaven," "day," "month," as well as "god;" perhaps the Zyrrianian *yen* "god" may retain this sound. The Persian corresponding phrase may then be restored in this way, "Darangadiva hamitriyā akunaush;" see Rawlinson, Notes, p. vi. The next clause I cannot restore. Ormazd appears in the following clause, both here and in the Babylonian version, as equivalent to the Persian term of which *Di*..... alone is left; and this is in some degree confirmatory of the above rendering. If Ormazd is in the nominative case, *yuttās* is put irregularly for *yuttās*, as at Persepolis, and *appin* being accusative supports this rendering. The last clause is pretty clear, but the Persian is damaged, and the half word remaining after *avatha* can hardly have been correctly given; I have restored *anīrachitu* in l. 63, from a passage in vi. 31, with a similar Persian equivalent.

IV. 5. hiak Tariyavaus Ko nanri:—Ni, "Ko, Akka vasišēn
 and Darius king says:—thou, king, who hereafter
nīkti, *ṣartuka* *ṭuin* *nisgas*; *yoṣ-irra* *tiṭain-ra*, *yufri*
 mayest be, in retribution ? protect; the man [who is] a liar, him
ṣarṣṭuka *viallu**ti*, *Tahiyahus-mi* *ṣarva*
 in retribution much punish. If thus thou continue, my province whole
aṣṭu.
 shall be (?).

Nīkti is restored from l. 83; the last letter is clear. A comparison of l. 18, III. 68, 75, 87, shews that *ṣartuka* must mean "returning," either good or evil. The end I do not see through; *ṣarva* occurs again in vi. 41 and iii. 16, but this gives me no light.

IV. 6. hiak Tariyavaus "Ko nanri:—ye appo *Hu yutta*;
 and Darius king says:—this [is] what I did;
ṣawia *Auramasta-na* *palkiva* *yutta*; hiak Ni akka vasišēn
 by favour of Ormazd always I have done; and thou who hereafter

> Ți'pi ye pahuranra, > Țipi ye-va riluik,
 Tablet this mayest peruse, whatever thou seest on this tablet written,
 yuvenpa uris, hini titkimmas reman^{ti}.
 thus declare, do not falsehood judge.

The rendering of the last clause has been adopted from the unmistakeably prohibitive character of *hini*, and the probability that the last word is in the second person. The Persian *varna* which is represented by our *uris*, may be the Sanskrit वर्ण "to describe:" see संवर्ण, &c. The sense will be "what thou seest written do not think false." This is consistent with the Persian, where Colonel Rawlinson saw *úja* in a subsequent visit to the rock, which may perhaps allow us to suggest the restoration *mátya durruja maniyáhya*.

IV. 7. hiak Tariyavaus Ko nanri:— ankiri-nĩ Auramasta
 and Darius king says:— witness to thee Ormazd
 ra, thap appo ye peri innĩ titki^mmmas Hu palkiva yutta.
 be, that what this ? not falsehood I always have made.

The letter preceding *Auramasta* is certainly *nĩ*, and corresponds with *taiya* seen by Colonel Rawlinson. *Peri* is the Persian *hashiyam*, but the meaning is uncertain.

IV. 8. hiak Tariyavaus Ko nanri:—sauvin Auramasta-na
 and Darius king says:— by favour of Ormazd
 tahiki-ta ⁷⁰Hu-nĩna irsikki yuttak senri appo Țipi ye-va innĩ
 other things by me greatly done there are which tablet on this not
 riluik, yupainraskimmas hini Akka > Țipi ye vasis⁷¹gin
 are written, for that reason let him not who tablet this hereafter
 paranra pi-mar appo Hu-nĩna yuttak, yufri innĩ
 shall peruse which by me is done, he not
 urinra titkimmas revan⁷²ri.
 related false may think.


All former translations of this passage have been given with much doubt, and are really very unsatisfactory. Opport rejects them all, and proposes none. The large lacuna in l. 71 prevents our drawing any conclusion from the Scythio version which can be accepted as quite positive; but the following is proposed as at least consistent:—
 "Other great deeds have been done by me which are not written upon this tablet; but because those other deeds done by me are not related,

let him who shall hereafter peruse this tablet, not think for that reason that they are lies." Colonel Rawlinson's correction of *nishim* "non ea," for *nishida* (see his Notes), certainly countenances this reading, in the Persian text as well as Scythic version.

IV. 9. hiak *Tariyavaus* Ko nanri:—Akka-pa Ko-fa irpifa
and Darius king says:—those who kings before
pi, kus senpafa, yupi-pa-na ye nifabak inni "yuttak, thap *Hu*
who, while they were, of them this ? not was done, as I
varrita sawin Auramasta-na yutta.
all by favour of Ormazd have done.

The unknown and damaged words in this paragraph prevent a full rendering, but the general sense must be something in this way: "The kings my predecessors, although they reigned a long time, did not such deeds as I, by the favour of Ormazd, have done." The word following "kings" is doubtfully read, and does not appear to occur elsewhere. I have restored *palkiva* in the lithograph, l. 73, but Colonel Rawlinson's Notes, p. vi, shew that the word *thrada* did not exist on the rock, and I write therefore *varrita* instead of *palkiva*.

IV. 10. hiak *Tariyavaus* Ko nanri:—am Ni uris "appo
and Darius king says:— ? thou declare what
Hu yutta; yechitu yupainraskimas hini tartinti; hiak anka
I have done; thus therefore do not conceal; and if
lulne ye inni tartinti, Tassunos apin tirinti, Aura⁷⁴masta
record this not thou conceal, the people them thou tell, Ormazd
Ni inkanis-ni, hiak kitinti Nimans-ni, hiak kutta viallu
thee befriend thee, and be to thee thy family, and also very
iktaka takti-ni.
long be thy life.

I am not quite satisfied with either the sound or value of the character I have called *am*, in l. 73; it is found also in l. 23, 33, and appears to allude to something past; the character  is supposed to be read *tin*, from its occurrence here, but it is not found elsewhere, and the considerations detailed after the syllabarium in p. 51 render it unlikely; *lulne*, the Persian *hadugam*, is probably "record," as conjectured by Colonel Rawlinson, and connected with *rilu* "to write." *Tassunos apin* looks like a dative for *Tassunos-pa*, but there is no other instance of its use. I cannot analyse the last bit; in l. 87 we find

viallu taka rasti-nī, having the same equivalent in Persian; perhaps *vialluik* may be one word, an adverb verbalized, meaning "be it long;" such a construction seems consistent with the usage of this class of languages; there may be an analogy between *taka* and *takti*, "life" and "live," or "continuance" and "continue."

IV. 11. *hiak anka sarak lulne ye țartin'ta*, Tassunos innī
and if again record this thou conceal, people not
tirinta, Auramasta Nin *afpis-nī*, *hiak kutta Nimang-nī hini*
tell, Ormazd thee destroy thee, and also family thy not
kitinti.
be to thee.

IV. 12. *hiak Tariyavau's Ko nanri:—ye appo Hu yutta*,
and Darius king says:—this which I have done,
şauvin Auramasta-na > Palkiva yutta; Auramasta annap
by favour of Ormazd always I have done; Ormazd god
Arriyanam pik'ti Hu-tās, *hiak annap appo tahifa appo senri pi*.
of Arians helper to me was, and gods the others who are who.

I rather think the word *Arriyanam* to be a literal transcript of the Persian genitive case plural; it is not found in the version made for the Babylonians, who were, no doubt, too well acquainted with mythology to be ignorant of the position of this deity. The last letter of the paragraph is either \succcurlyeq or \preccurlyeq or \succcurlyeq or \preccurlyeq . The latter has been taken, as the most likely; all that is visible is \succcurlyeq , made neither like \preccurlyeq nor \succcurlyeq , and there is not room for a fair-sized wedge before it to make \succcurlyeq .

IV. 13. *hiak Tariyavaus Ko nanri:—yuvempainraaskimas*
and Darius king says:—for this cause
Auramas'ta annap Arriyanam pikti, hiak kutta annap appo
Ormazd the god of the Arians helped, and also gods the
tahifa-pa; thap appo. *Hu innī arikka am, hiak innī tiras⁸⁰karragat*,
others; for that I not wicked am, and not was a deceiver,
hiak innī yutta, hiak innī Hu, hiak innī Nimang-mi
and not evil I have done, and not I, and not my family
batar ukku yupogat; hiak inni Fabakra innī Is⁸¹rasra
when(?) great became despotic; and not ? not ?

appattuikkinmas *Yoş-irra akka* > Alyeş Hu-nîna
utterly the man who family mine
baluikparrus-ta, yufri ʔartuka ir kukti; hiak Akka
had laboured, him in retribution him I favoured; and he who
aşchova, ir-yufri Hu ir afpiya appattuikkinmas akkari ukga
injured (?), him I slew utterly every one ?
innî yutta.
not I did.

The many unknown words in this paragraph, and the mutilated condition both of the Persian and Scythic inscriptions, forbid any hopes of a successful analysis, without a better acquaintance with the Ugrian languages than I possess; a few guesses are set down, but without much confidence. Some further observations may be found in the vocabulary. The word *baluikparrus-ta* is not quite correctly given in the transcript, p. 59, but the first part is very uncertain. The additional words found at Colonel Rawlinson's second visit to Behistun have suggested the reading of the latter part; but there appears to be a bit in the version which was not in the original text.

IV. 14. *hiak Tarişyavaus Ko nanri:—Ni, Ko, Akka vasişşin*
and Darius king says:—Thou, king, who hereafter
nîkti, Yoş-irra tişrasra yufri hini in-kannînti, hiak hini Akka
mayest be, the man a liar him do not befriend, and do not who
appat^{tu}uikkinmas yuttis.
utterly (?). ?

The last clause is unintelligible to me, and the last word is defective; there is certainly some prohibitory clause at the end, which can hardly be equivalent to the Persian original.

IV. 15. *hiak Turiyavaus Ko nanri:—Ni akka vasişşin > ʔipi*
and Darius king says:—Thou who hereafter tablet
ye chiyainti appo Hu rilu^{ra}, ye innakkaniva,
this seest which I have written, [and] these figures, do not
.....ki rinti; thap innifapata yechitu kuktas.
injury to them; as long as thou livest thus preserve.

The conjectural emendation proposed by Colonel Rawlinson, in the Notes, p. ix, is supported by the Scythic version; but I would suggest *avathâ* instead of *avaiya* for the last word but one.

IV. 16. hiak anka > Tipi ye chiyainsti, ye innakkaniva,
and if tablet this thou seest, [and] these figures,

.....rinti, thap innifapata chitu kuktainta, Auramasta
and doest no injury to them, as long as thou livest thus preservest, Ormazd

Ni inkanis-nī, histak kutta Nimang-nī *kitinti*, hiak viallu
thee befriend thee, and also family thy be to thee, and very
taka rasti-nī, hiak kutta appo yutirti, yuvenpa Auramasta
long be thy life, and also what thou shalt do, that Ormazd

atšas-nī.
increase thee.

In these two paragraphs, as well as in the next, the Scythic words signifying "doing injury" are mutilated, and singularly enough the verbal termination *rinti* is all that remains in the three places. For *innifapata*, see the Vocabulary. *Chitu*, in l. 86, is an obvious mistake for *yechitu*. *Viallu taka rasti-nī* is equivalent to *viallu iktaka takti-nī* of l. 75. A comparison of *atšas-nī* with *atšaikka*, "great," an epithet of "the world" in the Alwand Inscription (of which Colonel Rawlinson took an impression that leaves no doubt of the accuracy of the reading), inclines me to believe that this verb must signify "enlarge," "extend," and the equivalent Persian term *danautuva* will be allied to the Sanskrit तनु *tanu*.* This explanation will give a very probable meaning to the disputed *duriya apiya*, occurring so often in the small inscriptions.

IV. 17. histak anka > Tipi ye innakkanivarinti, innī
and if tablet this [and] figures thou injurest, not

kukirti, Auramasta Nin afpis-nī, hiak kutta Nimang-nī
thou shalt preserve, Ormazd thee slay thee, and also family thy
hini stkitinti, hiak appo yuttainti apin Auramasta rifapis-ni.
not be to thee, and what thou doest that Ormazd spoil for thee.

There is no equivalent here for the Persian *utāmaia yāvā taumā ahatiya*, which in the preceding paragraph is represented by *thap innifapata*. The word which I have made *apin* in l. 89, was very probably *Nin*, as in the similar phrases in lines 76 and 88.

All the above paragraphs from the fourth inclusive, are, I confess, but unsatisfactorily explained; but I believe the version upon the

* Some doubt may attach to this explanation, arising from the emendation in Notes, p. x, where we find *jadanautuva* instead of *danautuva*.

whole is a step in advance. A larger acquaintance with the languages will do much, and I am persuaded that many letters, become invisible upon the paper casts, may be recovered by a closer examination of the rock. In the mean time, what is here given will aid future investigators, and enable a Finnish scholar to give a much better explanation than I could accomplish by the most protracted study.

IV. 18. hiak Tariyavaus Ko nanri: — Vin^otaparna yesi,
and Darius kiug says:— Intaphernes named,
Visparra Sakri, Parsar-ra; hiak Yuttana yesi, Tukkarra Sakri,
Veispareš son, a Persian; and Otnes named, Socres' son,
Parsar-ra; hiak Gauparva yesi, ^oMartuniya Sakri, Parsar-ra; hiak
a Persian; and Gobryas named, Mardonius' son, a Persian; and
Viṭarna yesi, Bakapikna Sakri, Parsar-ra; hiak Bakapuksa yesi,
Hydarnes named, Megabignes' son, a Persian; and Megabyzus named,
Tattuvan²ya Sakri, Parsar-ra; hiak Artumannis, Vaukka Sakri,
Zopyrus' (?) son, a Persian; and Ardomanes, Vahuka's son,
Parsar-ra; appi Yoš Hu tayufa, kus Hu Gauma³ṭta akka
a Persian; these men me accompanied, while I Gomates the
Makus *afpiya*, akka nanri, Hu Bartiya tar kuras-na; hiak avasir
Magian killed, who said, I [am] Bardes, son of Cyrus; and as
Yoš Appi Hu tabuvanlu⁴fa, Ni, Ko, akka *vasišin nikti*
men these me aided, thou king who hereafter may be, remember
appo Yoš appir kuktās.
that men these favour.

It appears that the usual *yesi* was left out after the name of Ardomanes in l. 92, unless the name was written merely *Artuvan*; there would then be space for it. The word *afpiya* is restored after *Makus* in l. 93, though I should have expected *yufri* there; but the verb is wanted somewhere, and no other place appears at all suited for it: after *kus* some word ending in *gat* is generally found, but I know not what to put; perhaps *afpigat*; but there is no authority for it. The intent of the closing sentence is, no doubt, to call on the successors of the king to confer favours on the descendants of the men who assisted Darius in raising himself to the throne of Persia; it appears from Colonel Rawlinson's Notes, p. xviii, that this was contained in another paragraph, which was composed of two or three additional lines, but they are lost with the exception of a few letters; the Scythic version appears to have closed as above given. There was no room on the column for more.

DETACHED INSCRIPTIONS.

The following inscriptions have the same denominative letters as those affixed to the corresponding Persian Inscriptions by Colonel Rawlinson, in his Memoir. Of the first, marked A., there is no impression, and the copy has suspicious passages which are pointed out in the remarks on the first lines of the first column; for this reason it is not repeated here: the others follow.

B.

¹Ye Gaumatta, Makus, tiraska nanri, Hu ²Bartiya tar kuras-na,
This Gomates, Magian, lying said, I [am] Bardes son of Cyrus,
Hu Ko-vas yuttavara.
I king am.

C.

¹Ye Ašina ²tiraska nan³ri, Ko-vas A⁴farti-fa-pa Hu ⁵yuttavara.
This Atrines lying said, king to Susians I am.

D.

¹Ye Nititpa²al tiraska nan³ri, Hu Nabukutar⁴rasar tar
This Naditabirus lying said, I [am] Nabuchodromor son
nab⁵punīta-na, Ko-vas Ba⁶pilu-fa-pa Hu yut⁷tavara.
of Nabonidus, king to Babylonians I am.

E.

¹Ye Fruvartis ti²raska nanri, Hu Sat³tarritta, Nimanš
This Phraortes lying said, I [am] Xathrites, race
Va⁴kštarra-na, Ko⁵vas Mata⁶-pa-na Hu ⁷yutta⁸vara.
of Cyaxares, king of Medians I am.

F.

¹Ye Martiya ti²raska nanri, Hu ³Immannis, Ko-vas A⁴farti-fa-pa
This Martius lying said, I [am] Imanes, king to Susians
Hu yutta⁵vara.
I am.

G.

¹Ye Chissantakma ²tiraska nanri, ³Hu Nimanš Vakštar⁴-ra-na,
This Chitratakhma lying said, I [am] race of Cyaxares,
Ko-vas Asa⁵gartiya-fa-pa Hu ⁶yuttavara.
king to Sagartians I am.

H.

¹Ye Vistap²ta tiraska nan³ri, Hu Bartiya ⁴tar kuras-na, Hu
This Veisdates lying said, I [am] Bardes son of Cyrus, I

Ko⁵vas yuttavara.

king am.

I.

¹Ye Arakka tiraska ²nanri, Hu Nabu³kutarsar tar Nab⁴puni⁵ta-na,
This Aracus lying said, I[am]Nabuchodrossor son of Nabonidus,

Ko-vas ⁶Bapilu-fa-pa Hu ⁷yuttavara.

king to Babylonians I am.

J.

¹Ye Farrata tiraska na²nri, Hu Markus-pa-³na Ko-vas yuttavara.
This Phraates lying said, I of the Margians king am.

L.

The following inscription has no Persian or Babylonian version.

¹Tariyavaus Ko nanri: sau²vin Auramasta-na Hu > Tipi-vas
Darius king said: by favour of Ormazd I a tablet

²tahie-ikki yutta arriya-va, ³appo sassa inni senri; kutta > Atu⁴t
elsewhere have made Arian, which formerly not was; and ?
(or otherwise)

ukku, kutta > Suš ukku, kutta ⁵- Yes, kutta efapi yutta, ku⁶ttā
great, and ? great, and ? and ? I made, and

riluik, kutta Hu ti⁷fabapafaraka: vasni > Tipi-vas am⁸neni
is written, and I sending(?) then the tablet before

Tahiyahus varrita ati⁹va Hu nogaya, Tassunos pathapis.
province all in I sent, the people knew(?).

I have no clue to the meaning of the four objects made by Darius. At the close the termination *is* points out a verb in the third person, which is my motive for making one word of *pathapis*; but the termination *pa* stands in tempting proximity to the preceding word; making *Tassunos-pa*, "to the people."

It has been thought advisable to give here a connected version of the whole inscription on the rock, calling attention to any changes affecting the sense, by printing the altered passages in italic letters. The translation is made as literally as it could be done to remain intelligible.

COL. I.—Par. 1. I am Darius, the great King, the King of Kings, the King of Persia, the King of the provinces, the son of Hystaspes, the grandson of Arsames, the Achæmenian.

Par. 2. And says Darius the King:—My father was Hystaspes; the father of Hystaspes was Arsames; the father of Arsames was Ariyaramnes; the father of Ariyaramnes was Teispes; the father of Teispes was Achæmenes.

Par. 3. And says Darius the King:—On that account we are called Achæmenians; from antiquity we have descended; from antiquity those of our race have been kings.

Par. 4. And says Darius the King:—Eight kings of my race have held the kingdom before me, I am the ninth; from ancient times we have been kings.

Par. 5. And says Darius the King:—By the grace of Ormazd I am king; Ormazd granted me the empire.

Par. 6. And says Darius the King:—These are the countries which are called mine; by the grace of Ormazd I have become king of them:—Persis and Susiana and Babylonia and Assyria and Arabia and Egypt and the maritime country and Sparta and Ionia and *Media* and Armenia and Cappadocia and Parthia and *Zarangia* and *Aria* and *Chorasmia* and *Bactria* and *Sogdiana* and *Gandara* and *Sacia* and *Sattagydia* and *Arachosia* and *Mecia*; in all twenty-three countries.

Par. 7. And says Darius the King:—These are the countries which are called mine; by the grace of Ormazd they have become subject to me—they have brought tribute to me. That which has been said unto them by me, both by night and by day that they have done.

Par. 8. And says Darius the King:—Within these countries whoever was pious, to him I have returned protection; whoever was impious, him I have in retribution punished. By the grace of Ormazd these countries, given to me, have been favoured. As to them it has been said by me, thus they have done.

Par. 9. And says Darius the King:—Ormazd granted me this kingdom. Ormazd brought help to me whilst I gained this kingdom. By the grace of Ormazd I hold this kingdom.

Par. 10. And says Darius the King:—This is what was done by

me, *by favour of Ormazd*, when I became king:—My predecessor, named Cambyes, was son of Cyrus, [and his brother was named Bardes.] Cambyes killed Bardes. When Cambyes killed Bardes, *the people did not know that Bardes was killed*. Then Cambyes went to Egypt. Then the people became wicked, and falsehood abounded in the provinces, both in Persia and in Media, and in the other provinces also.

Par. 11. And then a certain man, a Magian, named Gomátes, arose from Pissiachádá, among the mountains named Arakadres; from thence on the 14th day of the month Viyakhna, he arose, and to the people he thus falsely declared: "I am Bardes, the son of Cyrus, the brother of Cambyes." Then all the people revolting from Cambyes, went over to him, both Persis and Media, and the other provinces. He seized the empire; on the 9th day of the month Garmapada, he thus dispossessed Cambyes: and then Cambyes voluntarily (?) killed himself.

Par. 12. And says Darius the King:—That kingdom, of which Gomátes the Magian dispossessed Cambyes, that kingdom had been in our family from ancient times. Then Gomátes, the Magian, dispossessed Cambyes of Persis and Media and the other provinces; he dispossessed him, and became king of them.

Par. 13. And says Darius the King:—There was not a man neither Persian nor Median, nor any one of our family, who would dispossess of the empire that Gomátes, the Magian. The people feared him. *He put to death all the people who had known the old Bardes, and this was the reason why he put all these people to death "that it may not become known [said he] that I am not Bardes, the son of Cyrus."* There was not one of those about Gomátes, the Magian, who dared to act, until I came. Then I worshipped Ormazd; Ormazd brought help to me; *by the favour of Ormazd*, on the 10th day of the month Bágayádish, then it was, with the men who were faithful to me, I slew Gomátes the Magian, and the chief men who were his followers. At the fort named Sictachotes, in the district of Media named Nisæa, there I slew him; I dispossessed him of the kingdom. By the grace of Ormazd I became king; Ormazd granted me the kingdom.

Par. 14. And says Darius the King:—The kingdom which had been taken away from our family, that I recovered. *I re-established in its place*, whatever had been before. Thus I did: *I revisited the temples of the gods which Gomátes the Magian had abandoned*. I reinstituted for the state the sacred chaunts and [sacrificial] worship, and confided them to the families which Gomátes the Magian had

deprived of those offices. And I established the kingdom in its place, both Persis and Media, and the other provinces, as it had formerly been; I restored what had been taken away. By the grace of Ormazd I did this. I laboured until I had established our family in its place, as it had been before. I laboured, by the grace of Ormazd, [in order] that Gomátēs the Magian might not supersede our family.

Par. 15. And says Darius the King:—This is what I did when first I became king.

Par. 16. And says Darius the King:—When I had slain Gomátēs the Magian, then a Susian, named Atrines, the son of Opadarmes, he arose in Susiana, saying; “I am King of Susiana.” Then the people of Susiana revolting from me, went over to Atrines; he became King of Susiana. And a certain man, a Babylonian, named Naditabirus, the son of *Ænara*, he arose in Babylonia, and thus he falsely addressed the people: “I am Nabochodrossor, the son of Nabonidna.” Then all the Babylonian people went over to Naditabirus. Babylon became rebellious. He seized the government of Babylonia.

Par. 17. And says Darius the King:—Then I sent to the Susians; Atrines was taken, and bound, and brought to me. And then I slew him.

Par. 18. And says Darius the King:—Then I went to Babylon against Naditabirus, who said: “I am Nabochodrossor.” The army of Naditabirus had reached the Tigris; *they held the banks (?) of the Tigris*, and sent ships (?). And then I placed the people on rafts (?), which embarrassed the enemy. Then attacking the enemy, Ormazd brought help to me, by the favour of Ormazd we crossed the Tigris, and there I destroyed the army of Naditabirus. On the 26th day of the month Atriyáta, then it was that we thus fought the battle.There I destroyed it.

Par. 19. And says Darius the King:—Then I went to Babylon. When I arrived near (?) Babylon, at a city named Zázána, upon the Euphrates, there Naditabirus, who said, “I am Nabochodrossor, came with a force against me offering battle. Then we fought a battle. Ormazd brought help to me; by the grace of Ormazd, I defeated the force of Naditabirus. On the second day of the month Anamaka, then it was that we thus fought the battle; I wholly defeated the army of Naditabirus, and drove them into the river, they were drowned in that river.

COL. II.—Par. 1. And says Darius the King:—Then Naditabirus, proceeding with the horsemen who were faithful to him, fled to Babylon. Then I advanced to Babylon; I took Babylon and seized Naditabirus. And then I slew Naditabirus at Babylon.

Par. 2. And says Darius the King:—Whilst I was at Babylon

these provinces revolted against me: Persis and Susiana and Media and Assyria and Egypt and Parthia and Margiana and Sattagydia and Sacia.

Par. 3. And says Darius the King:—A man named Martius, the son of Sisicres, in a city of Persia, named Cyganaca, there he dwelt; he arose in Susiana, and said to the people: "I am Imanes, King of Susiana."

Par. 4. And as I was friendly (?) to Susiana, then the Susians influenced by me, seized that Martius who was named chief, and slew him.

Par. 5. And says Darius the King:—A man named Phraortes, a Median, he arose in Media, and said to the people: "I am Xathrites, descended from the family of Cyaxares." Then the Median forces which were at home with me, revolting against me, went over to Phraortes; he became King of Media.

Par. 6. An army of Persians and Medes was with me; it remained faithful. Then I sent these troops to Media; a Persian, named Hydarnes, one of my subjects, him I appointed their leader. I thus addressed them: "Go, smite those Median people who do not acknowledge me." Then Hydarnes marched with his army to Media. When he reached Media, at a city of Media named *Marus*, there they fought the battle. As he who was leader of the Medes could not withstand [the assault], Ormazd brought help to me; by the grace of Ormazd my people entirely defeated the rebel army. On the 27th day of the month Anamaka, then the battle was thus fought. Afterwards my forces did not move, they remained at Kampada, a district of Media, until I myself arrived in Media.

Par. 7. And says Darius the King:—Then I sent to Armenia one of my subjects, named Dadarses, an Armenian. I thus said to him: "Go, destroy the rebellious people who do not acknowledge me." Then Dadarses marched; when he reached Armenia, the rebels assembling came before Dadarses offering battle. Then Dadarses engaged the fight with them. At a village in Armenia, named *Zuza*, there it was that Ormazd brought help to me; by the favour of Ormazd, my army entirely defeated the army of the rebels. On the 8th day of the month Thuravahara, then it was they thus fought the battle.

Par. 8. And for the second time the rebels, having collected, returned before Dadarses offering battle. At a fort in Armenia, named Tigra, there they fought the battle. Ormazd brought help to me; by the grace of Ormazd, my troops entirely defeated the rebel army. On the 18th of the month Thuravahara, then it was they thus fought the battle.

Par. 9. And for the third time the rebels, having assembled, returned before Dadarses, offering battle. At a fort in Armenia, named *Uhyama*, there they fought the battle. Ormazd brought help to me; by the grace of Ormazd, my forces entirely defeated the army of the rebels. On the 9th day of the month *Thaigarchish*, then it was the battle was thus fought by them. Afterwards Dadarses did not move; *he waited for me* until I reached Media.

Par. 10. And says Darius the King:—Then I sent to Armenia one of my subjects, a Persian, named *Vomises*. Thus I said to him: "Go, destroy the rebel state which does not acknowledge me." Then *Vomises* marched. When he reached Armenia, the rebels, having assembled, came before *Vomises* in order of battle. They fought the battle at *Achidu*, in Assyria. Ormazd brought help to me; by the grace of Ormazd, my forces entirely defeated the rebel army. On the 15th day of the month *Anamaka*, then it was they thus fought the battle.

Par. 11. And for the second time the rebels, having assembled, came before *Vomises* offering battle. In a district named *Otiára*, there they fought the battle. Ormazd brought help to me; by the grace of Ormazd, my forces entirely defeated the army of rebels. At the close of the month *Thuraváhara* the battle was fought by them. Then *Vomises* remained in Armenia until I went to Media.

Par. 12. And says Darius the King:—Then I retired from Babylon, and went to Media. When I reached Media, *Phraortes*, who said "I am King of Media," came to a town of Media, named *Gundrus*, offering battle. Then we fought the battle. Ormazd brought help to me; by the favour of Ormazd, I utterly defeated the people of *Phraortes*. On the 25th day of the month *Adukanna*, then it was we thus fought the battle.

Par. 13. Then *Phraortes* went to *Rhages*, with the horsemen who were faithful to him. Then I despatched my army; he was taken from thence, and was brought to me: I cut off his nose, and tongue, and ears; I smote him (?); he was bound and kept at my palace; all the people saw him; and then I put him on the cross(?) at *Ecbatana*; and bringing the men who were his chief followers back to the fortress of *Ecbatana*, I imprisoned them, and hanged them.

Par. 14. And says Darius the King:—A man, named *Sitratames*, a *Sagartian*, rebelling against me, addressed the people, thus saying: "I am the King of *Sagartia*; I am descended from the family of *Cyaxares*." Then I sent forth an army of Persians and Medians. I appointed their leader one of my subjects, named *Tachmaspates*, a *Mede*. Thus I addressed them: "Go destroy the rebel-

lions people who do not acknowledge me." Then *Tachmaspates* marched with his army. He fought a battle with *Sitratachmes*. Ormazd brought help to me; by the favour of Ormazd, my troops entirely defeated the rebel army, and took *Sitratachmes*, and brought him before me. I cut off his nose and ears, and I kept him in my palace, bound in chains. All the people saw him. Afterwards I put him on the cross at a place named *Arbela*.

Par. 15. And says Darius the King:—This I did in Media.

Par. 16. And says Darius the King:—The Parthians and Hyrcanians revolting against me, declared for *Phraortes*. *Hystaspes*, my father, was in *Parthia*; the people, forsaking him, rose in rebellion against him, and then *Hystaspes* marched forth with his army; at *Hyspaozatis*, a town of *Parthia*, there he fought the battle against the rebels. Ormazd brought help to me; by the grace of Ormazd, *Hystaspes* entirely defeated the rebel army; on the 22nd day of the month of *Viyakhna*, then it was the battle was thus fought by them.

COL. III.—Par. 1. And says Darius the King:—Then I sent from *Rhages* a Persian army to *Hystaspes*. When that army reached *Hystaspes*, he marched forth with those troops. At a city of *Parthia*, named *Patigrapana*, there they fought the battle. Ormazd brought help to me; by the grace of Ormazd, *Hystaspes* entirely defeated the army of the rebels. On the 1st day of the month of *Garmapada*, then it was the battle was thus fought by them.

Par. 2. And says Darius the King:—Then the province submitted to me. This I did in *Parthia*.

Par. 3. And says Darius the King:—The province named *Margiana*, revolting from me, took for their leader a man named *Phraates*, a *Margian*. Then I sent to him one of my subjects, a Persian, named *Dadarses*, who was the Satrap of *Bactria*. I said: "Go, destroy those rebellious people who do not acknowledge me." Then *Dadarses* marched with his forces; he joined battle with the *Margians*. Ormazd brought help to me; by the favour of Ormazd, my troops entirely defeated the rebel army. On the 23rd day of the month *Atriyátiya*, then it was the battle was thus fought by them.

Par. 4. And says Darius the King:—Then the province submitted to me. This I did in *Bactria*.

Par. 5. And says Darius the King:—A man, named *Veisdátes*, at a city named *Tárba*, in the district of *Persis* named *Yutiya*, there he dwelled. He arose a second time in *Persis*, and addressing the people, he said: "I am *Bardes*, the son of *Cyrus*." Then the Persian forces, which were at home revolting from me, went over to *Veisdátes*; he became King of *Persia*.

Par. 6. And says Darius the King:—The not revolting from me, I sent them forth, and the Persian and Median forces which were with me. Artabardes by name, a Persian, one of my subjects, him I appointed their leader. Another Persian force proceeded after me to Media, and then Artabardes, with his troops, marched to Persis. When he reached Persis, at a city of Persis named Racha, there that Veisdátes, who said "I am Bardes," came with a force before Artabardes, about to fight the battle. Then they joined battle. Ormazd brought help to me; by the favour of Ormazd, my troops entirely defeated the army of Veisdátes. On the 12th day of the month Thuravahara, then it was they thus fought the battle.

Par. 7. And then Veisdátes, with the horsemen who remained faithful to him, proceeded to Pissiachádá, and from that place his troops again came before Artabardes, about to fight the battle. At a town named Parga, there they fought the battle. Ormazd brought help to me; by the favour of Ormazd, my troops entirely defeated the army of Veisdátes. On the 6th day of the month of Garmapada, then it was that the battle was thus fought by them. They took that Veisdátes, and they took also the men who were his principal followers.

Par. 8. And says Darius the King:—Then that Veisdátes, and the men who were his chief followers [at the town of Persis named Chadidia, there I impaled (?) them].

And says Darius the King:—This I did in Persia.

Par. 9. And says Darius the King:—Veisdátes, who said, "I am Bardes," sent troops to Arachosia, against one named Vibánus, a Persian, one of my subjects, and Satrap of Arachosia, and appointed a leader. He thus addressed them: "Go, smite Vibánus, and that State which obeys King Darius." Then those forces marched which Veisdátes had sent to *Arachosia* against Vibánus. At a fort named Capiscania, in *Arachosia*, there they fought the battle. Ormazd brought help to me; by the favour of Ormazd, my troops entirely defeated the army of rebels. On the 13th day of the month Anamaka, then it was the battle was thus fought by them.

Par. 10. And the second time, the rebels, having assembled, fought a battle with Vibánus, in the district named Gandytia. Ormazd brought help to me; by the grace of Ormazd, my troops entirely defeated the rebel army. On the 7th day of the month Viyakhna, then it was the battle was thus fought by them.

Par. 11. And then that man whom Veisdátes had made leader of his troops marched, with the horsemen who were faithful to him. He retired to a fort of Arachosia, named Arsháda, the *dwelling-place*(?)

of *Vibánuš*. Then *Vibánuš* with his troops marched in pursuit, and there he captured *the man who had been appointed the leader of the army*, and the men who were his chief followers, and slew them.

Par. 12. And says Darius the King:—Then the province submitted to me. This I did in Arachosia.

Par. 13. And says Darius the King:—Whilst I was in Persis and Media, for the second time the Babylonians revolted against me. A man named Aracus, an Armenian, the son of *Hañditus*, he arose from a district of Babylon, named *Dobáña*, thence he arose; he thus falsely addressed the people, saying: "I am Nabochodrossor, the son of of Nabonidus." Then the Babylonian people revolting against me, went over to Aracus; he seized on Babylon; he became King of Babylon.

Par. 14. And then I sent troops to Babylon. A Median, of the name of Intaphres, one of my subjects, him I appointed their leader. Thus I addressed them: "Go, slay the Babylonian people who do not acknowledge me." Then Intaphres, with his force, marched to Babylon. Ormazd brought help to me; by the grace of Ormazd, Intaphres took Babylon; he completely defeated the army; on the 22nd day of the month of *Markazana*, then *Aracus*, who said, "*I am Nabochodrossor*," was seized, and, together with those who were his principal followers, was chained and crucified. *Aracus*, and the men who were his chief followers, were put to death by me in Babylon.

COL. IV.—Par. 1. And says Darius the King:—This I did in Babylonia.

Par. 2. And says Darius the King:—This is what I have done. I have always acted under the favour of Ormazd. Thus I did: I fought nineteen battles. By the grace of Ormazd, I gained them, and captured nine kings. One was named Gomátes, the Magian; he falsely said, "I am Bardes, the son of Cyrus;" he threw Persis into revolt. And a Susian, named Atrines, causing the Susians to revolt, said, "I am the King of Susiana." And a Babylonian, named Nadi-tabirus, he falsely said, "I am Nabochodrossor, the son of Nabonidus;" he made the Babylonians rebel. And a Persian, named Martius, he falsely said, "I am Imanes, the King of Susiana;" he threw the Susians into rebellion. And a Median, named Phraortes, falsely said, "I am Xathrites, of the race of Cyaxares;" he made Media revolt. And a Sagartian, named Sitratachmes, falsely said, "I am a king, of the race of Cyaxares;" he made Sagartia revolt. And a Margian, named Phraates, falsely said, "I am the King of Margiana;" he threw the Margians into revolt. And a Persian, named Veisdátes, falsely said, "I am Bardes, the son of Cyrus;" he

made the Persians rebel. And an Armenian, named Aracus, he falsely said, "I am Nabochodrossor, the son of Nabonidus;" he threw the Babylonians into revolt.

Par. 3. And says Darius the King:—These are the nine kings whom I captured in these battles.

Par. 4. And says Darius the King:—These are the provinces which became rebellious; the god of lies *made them rebel*, that they should *subvert the State*; afterwards Ormazd *delivered them into my hand*. As it was desired by me (?), thus I did to them.

Par. 5. And says Darius the King:—Thou, whoever mayest be king hereafter, *the man who is pious* (?), *him in retribution protect*; the man who may be heretical, severely punish him in retribution. If thus thou continue (?), my country shall remain entire.

Par. 6. And says Darius the King:—Whatever I have done, I have always done by favour of Ormazd. Thou whoever mayest hereafter peruse this tablet, whatever thou seest *written on this tablet*, declare it, and do not think it false.

Par. 7. And says Darius the King:—Ormazd be witness to thee that *I have always acted without falsehood, as here recorded*(?).

Par. 8. And says Darius the King:—By the grace of Ormazd, there is much else that has been done by me that upon this tablet has not been inscribed; *but because those deeds are not related, let him who shall hereafter peruse this tablet, not, for that reason, think that they are lies*.

Par. 9. And says Darius the King:—Those who have been former kings, as long a time as they reigned, *did not such deeds as I*, by the grace of Ormazd, have done.

Par. 10. And says Darius the King:—*Thou seest above what I have done*, therefore conceal it not. If thou *do not conceal this record*, but make it known to the people, may Ormazd be a friend to thee, and may thy offspring be numerous, and mayest thou be long lived.

Par. 11. And if again thou conceal this record, and shalt not tell it to the people, may Ormazd destroy thee, and mayest thou be childless.

Par. 12. And says Darius the King:—What I have done, I have always done by the favour of Ormazd. Ormazd, *the god of the Arians*, was my helper, and the other gods which are.

Par. 13. And says Darius the King:—On this account Ormazd, the god of the Arians, was my helper, and also the other gods, because I was not wicked, nor a liar, nor a doer of evil; and neither *did I nor my family become despotic when we became great* (?); and neither nor The man who helped my family,

him in return I favoured; he who injured(?) I slew him; I did not.

Par. 14. And says Darius the King:—Thou whosoever mayest be king hereafter, the man who may be a liar do not befriend him; (?) and do not.....

Par. 15. And says Darius the King:—Thou whosoever hereafter mayest behold this tablet which I have inscribed, and these figures, beware lest thou injure them; *as long as thou livest*, thus preserve them.

Par. 16. And if thou behold this tablet and these figures, and do no injury to them; and if thou preserve them (?) *as long as thou livest*, may Ormazd be a friend to thee, and may thy offspring be numerous, and mayest thou be long lived; and that which thou shalt do may Ormazd *increase for thee*.

Par. 17. And if seeing this tablet and these figures, thou shalt injure them, and shalt not preserve them, may Ormazd slay thee, and mayest thou be childless; and that which thou shalt do may Ormazd spoil for thee.

Par. 18. And says Darius the King:—A Persian named Intaphernes, son of Hyspares; and a Persian named Otanes, son of Soores; and a Persian named Gobryas, son of Mardonius; and a Persian named Hydarnes, son of Megabignes; and a Persian named Megabyzus, son of Dadoes; and a Persian named Ardomanes, son of Vahuca; these men were with me when I killed Gomátes, the Magian, who said: "I am Bardes, son of Cyrus:" *and as these men aided me, thou, who mayest be king hereafter, remember that thou be favourable to the descendants (?) of these men.*

It is unnecessary to repeat the epigraphs, in which no changes are required. The inscription marked L. may be thus conjecturally rendered:—

"Darius the king says:—by the grace of Ormazd I made another tablet in the Arian language, such as did not exist before, and I made a large and a large and and and they were written and distributed (?). And then I sent the above tablet through the empire, and the people understood it." (?)

INSCRIPTIONS FOUND ELSEWHERE THAN AT BEHISTUN.*


Of all the Scythic Inscriptions found at Persepolis, Van, Hamadan, &c., the only ones of which casts exist in the Asiatic Society's Museum are, the Door Inscription of Darius, No. 2 of Rawlinson's Memoir, B. of Niebuhr and Lassen, and the Alwand Inscription, No. 5. of Rawlinson, O. of Lassen. As the last contains the whole of the introductory passages so frequently repeated, with some few variations, and as the cast leaves no doubt whatever of the identity of every character employed, which is not the case with any other available copy, it has been lithographed, and is here transcribed as a standard by which the introductory passages of all the other inscriptions may be corrected.

No. 5 (O. OF LASSEN).

¹Annap an irsarra A²uramasta, akka ye - Mu³run pas-ta,
 Gods god great Ormazd, who this earth hath created,
 akka ank⁴ikka yupa pas-ta, akka ⁵Yoṣ-irra ir pas-ta, ⁶akka
 who heaven that hath created, who man him hath created, who
 ṣiyatis pas-ta ⁷Yoṣ-irra-na, akka ⁸Tariyavaus Ko ir ⁹yuttās-ta,
 the land hath created for man, who Darius king him hath made,
 kir Irsi¹⁰ki-fa-na Ko, kir Ir¹¹siki-fa-na framata¹²ram; Hu
 one of the many king, one of the many lawgiver; I [am]
 Tariyava¹³us Ko irsarra, Ko ¹⁴Ko-fa-irra, Ko Ta¹⁵hiyus-pa-na
 Darius king great, king of kings, king of the provinces
 Parruṣa¹⁶nanam, Ko - Mur¹⁷un ye ukku va āṭṣaik¹⁸ka farsatanīka,
 many peopled, king earth this great in extended widened,
 Vi¹⁹staṣba Sakri, ²⁰Akkamanniṣiya.
 Hystaspes' son, Achæmenian.

* For convenience of reference, a list of all the small inscriptions, whether with or without Scythic versions, is here given, in the order followed by Colonel Rawlinson, together with the letters by which they are designated in Lassen's and Westergaard's Memoirs; a few additional inscriptions have been since found. In all, whenever they are referred to in this memoir, the numerical order is followed. The detached inscriptions at Behistun are referred to by Rawlinson's letters. The lithographed independent inscription is made L.

No. 1. M.	No. 7.	No. 13. E.
„ 2. B.	„ 8.	„ 14. A.
„ 3. H.	„ 9.	„ 15. D.
„ 4. I.	„ 10. L.	„ 16. K.
„ 5. O.	„ 11. F.	„ 17. C.
„ 6. N R.	„ 12. G.	

This passage is repeated, with some variations, in six other inscriptions, numbered by Colonel Rawlinson, 6, 11, 13, 15, 16, and 17. The variations follow:—No. 13 has *annappi* at the beginning, and all omit the *an* which follows. After Ormazd, in l. 2, Nos. 11 and 16 insert *akka irsarra annappi-pa-na*, “who is the greatest of the gods.” For *pas-ta*, in lines 4, 5, 6, No. 6 has *taš-ta*. Instead of *ankikka*, “heaven,” all the other inscriptions have *ankik*. No. 15 has *hupa* instead of *yupa*, after *ankik*. For the *pas-ta* of lines 5 and 6 of No. 5, we have *pafatus-ta* in No. 6; an expression not found elsewhere, but which must be the indefinite past tense of a verb in *u*; No. 6 also omits *irra ir* of l. 5. *Siyatis* is found in Nos. 5, 13, 15; the others have *šiyatim*. No. 16 has *huttās-ta* for *yuttās-ta* of l. 9. The distinctive perpendicular is inserted only in Nos. 5 and 17 before *iriki-fa-na*; the *k* in the same words is doubled in Nos. 13 and 17. The genitival *na* is made by *inna* in all but Nos. 5 and 11; and in the two consecutive lines of No. 6 we have *na* and *inna*. *Framataram* is made *framattaranam* in No. 15, and *framatarana* in No. 16; but I suspect the copies; in No. 6 we have, for the same expression, *tanim-tattira*, “a law-giver,” the latter portion of the word being a transcript of a Persian *datar*; and as *tanim* in lines 46-7 renders the Persian *framānā* (cf. the Magyar *tana*), the attribution is positive. In all the inscriptions of Xerxes the title of “king of kings” is made by *Ko Ko-fa-inna* instead of *Ko Ko-fa-irra*. For the *Tahiyus-pa-na* of l. 15, No. 11 has *Tahihuspana*; No. 6 has *Tahihus-pa*; and No. 15 transcribes the Persian genitive plural, making it *Tahiyunam*. Instead of the Scythic transcript *Parrušananam* of lines 15-6, No. 11 puts *ba* for the first letter, No. 6 writes *vissatanas-pa-na*, a transcript, in part at least, of the Persian *Vispazana*, and No. 17 has *Ireikki-fa-inna Tanas-pa-na*, lines 6-7 and 11-2, in the two copies. The inscriptions of Xerxes omit *va* after *ukku*, and No. 6 has *ukkurarra*. Instead of *ašaikka*, No. 16 has *ašaka*, and Nos. 11, 13, and 15 shew —possibly an error; No. 17 gives *irsarra*, and No. 6 *irsanna*, perhaps engraved by inadvertence. *Fursatanika* is made *farsatinika* in Nos. 11, 15, and 16; *farsattinika* in No. 17; and *farsattinika* in No. 13. In No. 6, I believe the *far* is represented by the initial wedge. In Nos. 6, 11, 13, *aša* follows; can this be “father?” The Xerxes Inscriptions are variable in the mode of spelling *Akkamannišiya*; some double the *s*, and others omit one *k*. With these changes, some of which are probably the result of incorrect copying, and almost all merely orthographical, the seven introductory passages may be considered as transcripts of the same original.

The following version of this passage is, in a word or two, different

from those hitherto proposed :—" The God Ormazd, the greatest of Gods, who hath created this earth, who hath created that heaven, who hath created man, who hath created the land for man, who hath made Darius king, one king of many, one lawgiver of many. I am Darius, the great king, king of kings, king of the many-peopled countries, king of this great earth, large and wide, son of Hystaspes, the Achæmenian."

I now proceed to the other inscriptions, in the order observed by Colonel Rawlinson in his Persian Memoir.

No. 1 (M. OF WESTERGAARD), PAGE 422.*

Hu Kuras Ko Akkamannişiya.

I Cyrus king Achæmenian.

No. 2 (B. OF WESTERGAARD), PAGE 362.

'Tariyavaus Ko irsa'r-ra, Ko Ko-fa-inna, Ko Tahihus-pa-na
Darius king great, king of kings, king of provinces
visba-şana'ş-pa-na, Vistaşba Sak'ri, Akkamannişiya, akka 'ye
all-peopled, Hystaspes' son, Achæmenian, who this

➤ Tatsaram yuttās-ta.
palace hath made.

No. 3 is not a version of the Persian, the inscription accompanying it, which is marked K in Niebuhr's plate, being an independent monument. It is considered by Westergaard at p. 408 of his Memoir, and I add here my attempt at a version.

'Hu, Tariyavaus, Ko irsar'ra, Ko Ko-fa-inna, Ko 'Tahihus-pa-na,
I, Darius, king great, king of kings, king of provinces,
Ko ➤ Mu'run ye ukkurarra, Vi'staşba Sakri, Ak'kamannişiya.
king in earth this great, Hystaspes' son, Achæmenian.
Hiak Ta'riyavaus Ko nanri:—atkaş ye'va uktās Afvarrus ye
And Darius king says:— place on this extended (?) fortress this
kuşika; 'appuka ye-va ➤ Afvarrus inni ¹⁰kuşik; şauvin
is built; formerly on this a fortress not was built; by favour
Auramasta-¹¹na ye ➤ Afvarrus Hu kuşi¹²ya, hiak Auramasta yechi¹³tu
of Ormazd this fortress I built, and Ormazd thus

* The paging refers to Westergaard's Memoir in English, published in the
"Mémoires de la Société Royale des Antiquaires du Nord," Copenhagen, 1844.

The above inscription is engraved, with three others, on a large slab built into the south wall of the great platform at Persepolis. The other inscriptions enumerate the provinces of the empire, and invoke the protection of the guardian deities; the scope of the one under consideration appears to be to record the execution of the work generally. It does not appear why this one alone should have been composed in the Scythic language. The following assumptions are made in the endeavour to give a probable version:—*atkat*, "the locality of the building;" *uktās* connected with *ukku*, "great;" *kuši*, "to build," or "restore" (?); *afvarrus* = *afvarris* of Behistun, allied to the Magyar *var* or *varos*; *kuepoka*, in l. 23, compared with the same word in Col. II. l. 58, must signify some punishment or confinement. The version suggested is as follows:—

“I, Darius, the great king, king of kings, king of the provinces, king of this great country, son of Hystaspes, the Achæmenian. Darius the king says:—This extensive fortress has been built on this place, on which no fortress had been built before. I built this fortress by the grace of Ormazd; and Ormazd, with all the gods, has thus seen with favour that this fortress was built. I built it, and made it entire, and magnificent, and thus I returned the favour shewn to me (?). And Darius the king says:—Ormazd protect me, with all the gods, and also this fortress. Moreover, do not doubt that those confined in this place are wicked men.” Or the last clause may be. “Ormazd protect me, with all the gods, and also this fortress, and what is enclosed therein. This do not doubt that the wicked men will be punished.”

Of No. 4, I. of Westergaard and Lassen, there is no Scythic

version, and No. 5 has been already given; we therefore proceed to No. 6, the Naksh-i-Rustam Inscription; Westergaard's Memoir, p. 364.

¹Annapp irsarra Auramasta, akka > Murun ²taś-ta, [akka]
 God great Ormazd, who earth hath created, who
 ankik yupa taś-ta, akka Yoṣ ³pafatus-ta, akka ṣiyatim pafatus-⁴ta
 heaven that hath created, who man hath made, who the land hath made
 Yoṣ-irra-na, akka Tariyavaus. ⁵Ko ir yuttās-ta, kir irsiki-fa-na
 for men, who Darius king him hath made, one of many
 Ko, kir⁶ irsiki-fa-inna ṭanim-tattira. Hu Ta⁷riyavaus Ko irsarra,
 king, one of many law-giver. I Darius king great,
 Ko Ko-fa-irra, ⁸Ko Tabihus-pa viassa-tanas-pa-na, Ko > Mu⁹run ye
 king [of] kings, king of provinces all-peopled, king in earth this
 ukku-rarra irsanna(?) satanīka, a¹⁰ta Vistaśba sakri,
 great large wide, father(?) Hystaspes' son,
 Akkamanniṣiya; Par¹¹sar, [Par]sar sakri, Arriya, Arriya chissa.
 Achaemenian; Persian, a Persian's son, Arian, Arian race.
 Hi¹²ak Tariyavaus Ko nanri:—ṣauvin Aura¹³masta-na, ye
 And Darius king says:—by favour of Ormazd, these [are]
 Tahiyaus appo Hu marri-ra, vassavas¹⁴raka Parsan ikkamar; Hu-ikki
 provinces which I have possessed, in addition to Persia from; to me
 vasir tanifa, manna¹⁵t-vas Hu-nīna kutis; appo Hu-ikkamar
 ? influenced, the tribute of me they brought; what by me
 ap-tarrika, ¹⁶yupa yuttās; taṭām appo Hu-nīna yupa apin
 to them was said, that they did; law which of me that they
 marri¹⁷s:—Mata, Aftufarti, Parthuva, Arriva, Baiktar¹⁸ris, Sukta,
 kept:— Media, Susiana, Parthia, Aria, Bactriana, Sogdiana,
 Varasmis, Sarranka, ¹⁹Arruvatis, Thaṭtakus, Kantara, Sin²⁰tus, Sakka
 Chorasamia, Zarangia, Arachosia, Sattagydia, Gandaria, India, Sacæ
 Umuvarka-fa, Sakka appo tikra²¹kautap, Bapilu, Assura, Arbaya,
 Amurgii, Sacæ who use arrows, Babylonia, Assyria, Arabia,
 Musar²²raya, Arminiya, Katpartuka, Sparta, ²³Yauna, Sakka appo
 Egypt, Armenia, Cappadocia, Sparta, Ionia, Sacæ who
 angauṣ vittuvanna, ²⁴Skutra, Yauna takaparra-pa, Pahuti²⁵yap,
 the river beyond(?) Scythia, Ionians axe-bearers, Budians,
 Kuṣiya, Machchiyap, Karkap. Hiak ²⁶Tariyavaus Ko nanri:—
 Cossæans, ? Carchians. And Darius king says:—

Auramasta "thap chiyasa ye > Murun farravvantim ²²alruşini vasñ
Ormazd when he saw this earth ? ? ?

Hu-kaik(?) Hu Ko hunain yuttàs; ²³Hu Ko *gafar*, şauvin
? I king me(?) he made; I king am, by favour

Auramasta-na Hu atka²⁰ta-va arta; appo Hu ap-tirira, yupa
of Ormazd I in place settled; what I to them said, that

yut²¹tàs; thap Hu anîra chitu. Anka sarak reman²²ta appo
they did; as I desired(?) so. If again thou consider that

awak Tahiyaus yupa appo Ta²²riyavaus Ko marris-ta, nainta
"mine (?) province [is] that which Darius king hath held," ?

Şal²³pohus akkapa atka ap kutvatti pi avi tarna²⁶inti, yu *tarvas* ir
? who place them take who there thou knowest, then ? it

tarnainti, Yoş-irra Parsar²⁴ra-na satanîka *atparvasrum* yeporik;
know, of the men of Persia extensively power (?) goes out;

yu *tarvas* ir tarnainti, Yoş Parsarra, satanîka Par²⁵san ikkamar
then it know thou, man Persian, far Persia from

pavas şatu inta. Tariyavaus ²⁶Ko nanri:—Yupa appo
war (?) keep thou away. Darius king says:— that which

yutraska, yupa varri²⁷ta şauvin Auramasta-na yutta: Auramas²⁸ta
has been done, that all by favour of Ormazd I did: Ormazd

pikti Hu-tas, kus yutta *tarva*; Hu ²⁹Auramasta Hun nisgasñ
help to me gave, while I did the whole(?); me Ormazd me protect

siyunika ³⁰ikkamar, kutta > Alyeş-mi, kutta ye "Tahiyaus; yupa
evil from, and house my, and this province; that

Hu Auramasta yaşu³¹tavan; yupa Auramasta Hu > Snisñ.

I Ormazd beg;(?) that Ormazd me grant.(?)

"Yoş-irra! appo Auramasta-na şani³²m yupa hini siyunika
O men! what [is] of Ormazd the law that do not evil

remanti; > Vars appo mar³³tarrakka hini vachştainti, hini
think; the path which is commanded do not forsake, do not

antartainti.

conceal.

In many parts of this inscription I must avow my inability to afford a better explanation than that given by Westergaard with much fewer resources. As far as the introductory passage extends, little need be added to what was stated in the notes to inscription No. 5 (p. 147). In lines 7 and 9 the termination *irra*, as in some other places, makes the genitive: in *ukkurarra* it seems that we have

l. 41, looks like a word in Col. III. 65, but the first letter is very faint in both cases. The mutilated 𐎧𐎠𐎶 of the last line I restore with confidence to 𐎧𐎠𐎶 *vach*; compare *vachtavassa*, II. 69-70, and see the remark on the passage, p. 115.

Of No. 7 there is no Scythic version. No. 8 contains only the words *Hu Tariyavans ko*, without the distinctive mark before "king;" and it is observable also that the oblique wedge is omitted before the equivalent Persian word. Of No. 9, which says only "Darius the great king," I have no copy.

No. 10 is the "Window Inscription," L. of Westergaard and Lassen, p. 363. The transcript of it in Roman characters will be:—

Artästana 𐎧 Aräsinna Tariyavans Ko 𐎧 Alyes eva yutraska.

This little inscription has received already several different translations. Professors Lassen and Westergaard's essays were rendered incorrect by the supposition that *karta* signified "a palace." Colonel Rawlinson was first inclined to translate "executed in honour of Artystone, the wife of King Darius." He afterwards proposed the various versions "a worthily placed building (or the building of Ardas-tana), made for the family of Darius the king:" "done by Ardastá the builder, the relative of King Darius:" "executed by Ardastá the architect for the palace (or in the palace) of King Darius:" "made by the labour of Ardastá, for the family of King Darius;" admitting the uncertainty of all these versions, though rather preferring one of the last two. Benfey translated it "Hohe Wohnung bildendes Werk, auf Befehl des König Darius gebaut;" i. e. a work constituting a lofty habitation built by command of King Darius. Oppert proposes "Chambranle (ou fenêtre) [or Chambranle de pierre (?)] exécuté dans le palais du Roi Darius." M. de Sauley, from the Scythic text, proposes "Pavillon réservé du Roi Darius; littéralement, Du noble palais de Darius, pavillon d'habitation bien construit."*

It is nearly hopeless to look for success after so many professedly doubtful suggestions, but a few remarks on some peculiarities in the Scythic version may aid future guessers. The word *Arasinna*, which certainly represents the Persian *Athagaina*, and may be a transcript, is preceded by the same mark which goes before "family," "tablet," and several other words of uncertain meaning, but always substantives, and obviously things of importance. 𐎧 *Alyes* is followed by 𐎧𐎠𐎶 𐎧𐎠𐎶

* From M. Oppert's Treatise. I have not De Sauley's paper at hand.

eva, which may be a postposition, equivalent to *va*, and serving the purpose of the termination *iyá* in the Persian. I have been inclined to consider 𐎠𐎶𐎶 here equivalent to the 𐎠𐎶𐎶𐎶 of xv. 11, which is the Persian *duvarthi*, "a gate," and for this purpose the 𐎶𐎶𐎶 of that inscription must be divided, and the word read 𐎠𐎶𐎶𐎶𐎶, making the 𐎶𐎶 the article; the omission of a wedge in the character 𐎶𐎶 being a usual occurrence in the inscriptions of Persepolis; but it will be objected that there is no equivalent for this word in the Persian original. *Yutraska* is the regular passive participle. The whole must therefore imply some work or edifice "erected for the use of King Darius."*

No. 11, F. of Westergaard, p. 340, contains nothing more than the introductory passage, constituting the first small inscription given p. 146; and, with the exception of the names of Xerxes and Darius, instead of Darius and Hystaspes, and some variants there detailed, is identical with it. We therefore pass on to the next.

No. 12, G., of Westergaard, p. 340, contains only the following four lines:—

𐎠𐎶𐎶𐎶𐎶, Ko irsa^ara, Ko Ko-fa-inna, Ta^ariyavans Ko Sak^ari,
Xerxes, king great, king of kings, Darius king son,
Akkamannišiya.
Achæmenian.

No. 13, E. of Westergaard, p. 341, appears in two copies, one of which has twelve long lines, the other twenty-three short ones; the former division is here followed. After the introductory passage, with the variants given in the notes on the first small inscription, this inscription goes on to say:—

Nanri Iksirsa Ko irsa¹⁰rra:—šauvin Auramasta-na ye > Alyeš
Says Xerxes king great:— by favour of Ormazd this house

* Since writing the above, I have seen some MS. notes of Colonel Rawlinson on the Babylonian alphabet (which I must have seen before, but had forgotten), where he gives good reasons for translating the first words by "marble hall." Perhaps the whole may therefore now definitively receive this version—"marble hall [or arch], built for the family of Darius the King."

Hu yu¹¹ta; Hu Auramasta un nisgasnī, annappi ¹⁵itaka, kutta
I built; me Ormazd me protect, gods with, and

Šunnk-vas, kutta appo yuttara.
the empire, and what I have done.

It is observable that *Nanri* precedes the name of Xerxes, while it follows always in the inscriptions of Darius. *Alyes* appears by this inscription to signify as well the "building" as the "family." Observe the separation of *Hun* into *Hu* and *un*.

There is no Scythic translation of Inscription No. 14, A. of Lassen and Westergaard. No. 15, marked D., p. 351 of Westergaard, contains the usual introductory passage; and continues in the following manner:—

Nanri Iksirssa ¹¹Ko:—šauvin Auramasta-na ye > Eva vas
Says Xerxes king:—by favour of Ormazd this portal
vissa¹²tahiyus Hu yutta. Irsiki, tahie-ša šis¹²ni-na yutras
public I made. Greatly, whatever else of magnificent having done
> Barsa ye-va, appo Hu yutta¹⁴ra, kutta appo Attata yuttasta,
in this Persepolis, what I have done, and what my father has done,
appo sarak (?) ¹⁵yutraska chiyamak šisnī-na, yupa varrita
what again being done is conspicuous of magnificent, that all
¹⁶šauvin Auramasta-na yuttutta. Nan¹⁷ri Iksirssa Ko:—Hu
by favour of Ormazd we have done. Says Xerxes king:—me
Auramasta un ¹⁸nisgasnī, kutta > Sunkuk mi; kutta ¹⁹appo Hu
Ormazd me protect, and empire my; and what I
yuttara, kutta appo Attata ²⁰yuttasta, yupa-ša Auramasta
have done, and what my father has done, that-soever Ormazd
nisgasnī.
protect.

The word in l. 11, which corresponds with the Persian *duvarthi*, includes a character not found elsewhere: it may perhaps be divided 𐎲𐎠𐎶 and read *va vas* (see the remarks on Inscription No. 10). The peculiar indefinite value of the terminal *ta* is clear from this inscription, in the words *tahieša*, *varrita*, and *yupata*; see Grammar, p. 72; for the insertion of *ma* in *chiyamak*, see p. 88. I think also *yutras* and *yutraska* are here distinguished as active and passive participles. The orthographical difference between *Sunkuk* here, and *Šunuk* in the preceding inscription, would imply a guttural sound in the 𐎲𐎠𐎶 ,

Lido-Germanic languages. *Tarvasni* may be the *tarvas* of vi. 35, 36. The last lines are completed from Inscription No. 13, the Babylonian version of the two being identical. I would suggest the following translation, beginning from the third clause of Colonel Rawlinson's version, p. 335 of his Memoir. "Says Xerxes the king:—King Darius, who was my father, by the grace of Ormazd made many noble works; he also placed this monument(?); but as he did not write a tablet, then I placed and wrote a tablet. May Ormazd protect me, and the other gods, and my empire, and what I have done." This is hardly justifiable perhaps in parts, but it may represent the general meaning of the clause.

No. 17, C. of Lassen and Westergaard, p. 348. Two copies of this inscription are found; one of fourteen long lines, the other of twenty-five short ones. The former is here followed, as being the best preserved, and we begin as usual after the introductory clauses.

*Nanri Iksirsa Ko irsarra:—sauvin Aura¹⁰masta-na ye > Alyes
Says Xerxes king great:—by favour of Ormazd this house
Tariyavaus Ko yuttās, ak¹¹ka Hu Attata; Hu Auramasta Hun
Darius king made, who [was] my father; me Ormazd me
nisgasnī, an¹²nappi-pa itaka, kutta appo yuttara, kutta appo
protect, gods with, and what I have done, and what
¹³Attata Tariyavaus Ko yuttāsta, yupa¹⁴ta Auramasta nisgasnī,
my father Darius king hath done, that whatsoever Ormazd protect,
annappipa itaka.
gods with.

There is nothing in this inscription which requires any remark.

After the preceding pages had been written, I received from Colonel Rawlinson two inscriptions, which have been found at Susa; one of them certainly, and the other probably, erected by Artaxerxes Mnemon; differing considerably in orthography, and partly in the form of the characters, from all the inscriptions hitherto found. Singularly enough, too, the one which is long enough to shew any grammatical construction contains errors of syntax similar to those in the Persian Inscription of Artaxerxes Ochus formerly published, which might lead to a supposition that the Scythic tongue had declined simultaneously with the Persic. I do not think that this is the case, but rather that the irregularities found arise from a desire on the part of the writer to make the translation as literal as possible, even to the errors of the original.

The solecisms found are chiefly the substitution of genitives for nominatives; errors of gender of course there cannot be, as the language does not distinguish genders. Both inscriptions are given in the lithograph, and it seems that in the first the words were separated by a little horizontal wedge, answering the purpose attained by the oblique wedge of the Persian Inscriptions; the inscription might be supposed to be made more easily intelligible by this division, but it has not been found so: the syllabic characters are in fact, so linked into each other, that unless the word is known by the context, it is in the majority of cases quite impossible to say whether these dividing wedges may not be portions of letters, sometimes of those preceding and sometimes of those coming after; and the letters themselves are never clearly separated; so that a clause of half a line may be equally well read in half a dozen different ways. The purpose answered by the perpendicular line in the other inscription, is made in this by two such wedges, in addition to the dividing wedge, and the three thus coming together, with sometimes a fourth forming part of a preceding or following letter, are so irregularly placed, that for a long time I supposed that they were merely a number of dots inserted by pure caprice. In addition to this difficulty there is another arising from the absence of the angular <, which is always replaced by an oblique stroke, frequently so little slanting as hardly to be distinguished from one upright, while that which should be a genuine perpendicular as in >|, at the end of l. 4, is made slanting. But the greatest difficulty of all is the occurrence of wholly new characters like >| and >||, which cannot be reduced to any known forms. All this throws a good deal of uncertainty on parts of the inscription, and the Persian and Babylonian copies are too incomplete to be of use in the closing sentences, where alone help is wanted. Some of the following readings therefore must be taken with much allowance. The word meaning "king" is made by a syllable ending in *as*, but as I have no authority for so reading it, I continue to use the *ko* of former readings. The first Susian Inscription, which is upon the pedestal of a column, I call No. 18; the second, written round the base of a column, No. 19.*

No. 18.

¹Nanri Artaksassa, Ko aşakarra, Ko Ko-inna-fa, Ko > Tahiyus-na,
Says Artaxerxes, king great, king of kings, king of the country,

* The lithographed copies are reduced facsimiles, made from casts, with which I was supplied by the kindness of W. Kenneth Loftus, Esq., who discovered these inscriptions. They were not received until long after the Memoir was concluded.

Ko hiyahie bumiya, Tariyavaus-na Ko-na sakarri. Tariyavausna
king of this earth, Darius king's son. Darius [was]

Artaksasas-na Ko-na sakarri; Artaksasasana Iksirsa-na Ko-na
Artaxerxes king's son; Artaxerxes [was] Xerxes king's

sakarri; Iksirsana Tariyavaus-na Ko-na sakarri; Tariyavausna
son; Xerxes [was] Darius king's son; Darius [was]

Vistasta-na sakarri, Akavanapasa: Innakga abatana Tariyavaus
Hystaspes' son, Achaemenian: this temple Darius

apbaniyakka punina tasta; vas'saka appuka Artaksasas
ancestor my made; afterwards by Artaxerxes

niyakka-mi-mar irva luvaikka; pikta anvarvasta-na, Anam-tanata
my grandfather it was restored; (?) by help of Ormazd, Tanaitis

Missa Yu sira abatana ye nata; anvar'masta, Anam-tanata,
[and] Mithra I placed temple this in(?); Ormazd, Tanaitis,

Missa Yu un nisgasni visnaka var'tava varpita akka
[and] Mithra me protect with the gods (?) and all that

yuttara,

I have done,

The loose way in which this inscription was engraved, the abnormal spelling, and the unusual forms of the letters, all combine with grammatical inaccuracies to throw difficulties in the way of a satisfactory explanation of that part of the inscription which follows the usual introductory phrases. The Persian text would have been of great assistance, but it unfortunately fails us where the difficulties begin, the fourth and fifth lines being almost completely broken away, without leaving a single entire word. We give it here, because the fragments that have been saved from the wreck are not wholly useless; they serve at least to aid in making a guess.

'Thátiya Artakhshatrá naqa vazarka, naqa naqayánám, naqa dahyaunám, naqa ahyáyá bumiya, Dáryavush-hyá naqahyá putra: Dáryavush-hyá Artakhshatráhyá naqahyá putra, Artakhshatráhyá Kshayárchahyá naqahyá putra, Kshayárchahyá Dáryavush-hyá naqahyá putra, Dáryavush-hyá Vishtáspahyá putra, Hakhamánashiya: Imam apadána Dáryavush apanayákam ak'unash; abiyapara.....pá Artakhshatrá niyakam.....Anahata utá Mithra, vashná Auramazdáha opadáná adam* akunavam. Auramazdá Anahata utá Mithra nám pátuva

* I should have expected *niyastágam* here, but there are certainly the distinct traces of 𐎶 and 𐎷 on the fragment.

represented by $\Xi\Upsilon$ $\Xi-\Upsilon\Upsilon$ $\Xi\Upsilon$ $\Xi-\Upsilon\Upsilon$, taking the additional $\Xi\Upsilon$ as part of the phonetic rendering of the word, in order to mark the surd articulation of the following $\Xi-\Upsilon\Upsilon$, so as to ensure the sound of *Tanata*, and not *Danata*; the initial $\Xi-\Upsilon\Upsilon$ having more commonly the value of *d*. We should then have $\Xi\Upsilon$ $\Xi\Upsilon-\Xi$ left for the determinative; and, as suggested in page 49, the syllable following $\Xi\Upsilon$ may be read *am*, which might have the same value in making a feminine gender, as the same syllable has in the words *begum*, "a princess," from *beg*, and *khanem* from *khan*. I believe that this *um* or *em* is the same particle as the Mongol *eme*, which means "woman," or "female" generally, and is used in the Mongolian language not after, but before, the appellation of some animals, to distinguish the gender. It is true that this proposition depends on a series of conjectures, any of which may be unfounded, and I give it therefore with much hesitation. I am reminded by Mr. Dowson that there is a nearer analogy in Telugu and Tamil; in the former language *amma* is a regular termination of female names; in the latter the last syllable is made long, *ammá*; and the other Dekkanic tongues will very probably be found to have something equivalent. In the Ugrian languages we have the Ostiak *ima*, "a wife," Finnish *emä*, "mother," Magyar *eme*, "female," and several other feminine words of which *m* is the root sound. A quotation from Berossus, preserved by Clemens Alexandrinus, informs us that Artaxerxes Ochus first introduced the worship of this goddess among the Persians:—*Ἀνθρωποειδῆ ἁγάλματα σέβειν αὐτοὺς Βήρωσσοι ἐν τρίτῃ Χαλδαϊκῶν παρίστησι, τοῦτο Ἀραξέρξου τοῦ Δαρείου τοῦ Ὀχου εἰσγηγασμένου, ὃς πρῶτος τῆς Ἀφροδίτης Ταναΐδος τὸ ἅγαλμα ἀναστήσας ἐν Βαβυλῶνι, καὶ Ζούσοις, καὶ Ἐκβατήνοισι, Πέρσαις, καὶ Βάκτροις, καὶ Δαμασκῷ, καὶ Σάρδεσιν ὑπέδειξε σέβειν*. Our inscription, however, confirms the statement of Plutarch, that *Tanata* was worshipped in the time of Artaxerxes Mnemon, the predecessor of Ochus. It has been usual in printed Greek works to alter the name of *Tanata*, or *Tanaïs*, to *Ἀναΐτις*; but the Phœnician $\Pi\Pi$, the present inscription, and the authority of good manuscripts of Strabo,* show that *Tanaïs* was equally admissible; and if the very probable conjecture of Gesenius, as to the identity of *Tanata* and the Egyptian goddess *Neith*, be correct, the reason of the variation is plain, *ta* being merely the Egyptian feminine article. *Vissa* is a curious transcript of *Mithra*, but it is quite regular; the Persian *tr* or *thr* being always made by *ss*, and the *v* and *m* undistinguishable; the Persian fragment shews $\text{𐎧𐎠𐎶} = \Upsilon\Upsilon \Upsilon\Upsilon$

* See Gesenius. Phœn. Monum., 1837, p. 115.

which is without a doubt $\text{Y} \leftarrow \text{Y} \rightleftharpoons \text{Y}$. I read *sira*, "I placed," with some doubt; I find the same word in III. 45, xvi. 21, 23, but in neither instance is the sentence quite positive; Ormazd being put in the genitive case, while Tanaitis and Mithra are without this distinction, seem to call for such a construction, though the frequent addition of the genitive particle in this inscription, where the word is certainly not in the genitive case, must leave some doubt. The characters after *abatana* probably make a postposition; but I read them very doubtfully, and, as read, they are not like any hitherto found. *Yu*, for *Hu*, "I," is read with confidence, because the substitution has been found elsewhere, though not in the pronoun. *Varpita*, "all," may be compared with *varrita* and *varpafuta*, occurring elsewhere. Of the close of the inscription I can make nothing at all, nor can I even separate the letters with any confidence: the reading set down in the transcript may be varied almost *ad libitum*.

The following translation of the whole inscription is suggested as not very far from the truth, though incomplete:

"Says Artaxerxes, the great king, the king of kings, the king of the country, the king of this earth, the son of King Darius:—Darius was the son of King Artaxerxes, Artaxerxes was the son of King Xerxes, Xerxes was the son of King Darius, Darius was the son of Hystaspes, the Achæmenian. Darius, my ancestor, anciently built this temple, and afterwards it was repaired (?) by Artaxerxes, my grandfather. By the aid of Ormazd, I placed the effigies of Tanaitis and Mithra in the temple. May Ormazd, Tanaitis, and Mithra protect me, with the [other] gods (?), and all that I have done....."

No. 19.

Hu Irtakiksassa, Ko irsarra, Ko Ko-fa-inna, Tariyavaus Koas-na
 I Artaxerxes, king great, king of kings, Darius king's
 > Sakri.
 son.

This is perfectly clear, and the only matters requiring remark will be the singular orthography of the name of Artaxerxes, the way in which "king" is written after the name of Darius, proving the final *as* of the word, and the unusual shape of the *ak*, $\text{E} \rightleftharpoons \text{E}$; though the letter certainly may have been $\text{Z} \leftarrow$, *kar*, part of *sakarri*, as on the preceding inscription, every part of it, except the two first wedges,

being very indistinct. The forms generally and the orthography are not nearly so strange as in the preceding inscription.

I have nothing further to remark than the small fragment, a fac-simile of which is engraved on the eighth plate. It is made from a paper cast which I found among those left at my disposal by Colonel Rawlinson, and it appears to be the bottom left hand corner of a large inscription. The especial interest of this bit is, that it proves to be part of a literal copy of the great inscription, a duplicate in fact, a sort of second edition which was made for some purpose or other, probably at an epoch very near the time when the original was engraved. The three lines which I have would, if completed, represent the 61st, 62nd, and 63rd lines of the first column, beginning in the middle of the name Nabunita. I cannot help thinking that we have here a corner of the almost obliterated inscription, which appears to have been sculptured above the great inscription at Behistun, though I cannot understand why two copies should have been made upon the same rock: unless perhaps the first was found to be ill done, or upon too friable a surface, or too high to be visible; in which case the obliterated inscription is the original, and the one we have is the duplicate. At all events it may be thought worth the trouble of an impression on paper by some future traveller; bits will here and there be legible, like the fragment exhibited, and may be found of great use in restoring some of the lost portions of our present copy; this might have been the case in the present instance, although the restoration was obvious, and had in fact been made before this fragment was noticed.

I cannot conclude this analysis without deprecating any severe criticism on the part of those Tartar scholars who may be induced to go over it; it might have been more prudent to publish as good an engraving of the inscription as I could get from the casts, and to leave it to them to read and decipher; but having spent a good deal of time in the work, I was unwilling that it should be altogether lost; now and then a good guess has perhaps been made, but I have all along laboured under the difficulty of a very imperfect acquaintance with the languages compared, and the absence of those aids which are numerous enough in languages of the Indo-Germanic and Semitic classes, but are hardly to be procured in those which are allied to that under consideration.

VOCABULARY.

Antiyarus. $\mathbb{W}\mathbb{F} < \mathbf{>}\mathbb{F} \mathbb{E}\mathbb{Y} \mathbb{E}\mathbb{Y} \mathbb{Z}\mathbb{Y}$ II. 45. In Persian, *Autiyāra*, II. 58-9. This was a district of Armenia, and it was probably well known to the Scythic tribes, because the definition "a district of Armenia," given in the Persian inscription, is omitted in Scythic. The name is lost in Babylonian.

Abatana. $\mathbb{W}\mathbb{F} \mathbb{Z}\mathbb{Y} \mathbb{Z}\mathbb{Y} \mathbf{>}\mathbb{Y}$ xviii. 3. "A temple;" probably the same word as *appatna*, of I. 47, which the Babylonian version defines, I. 25; being here, however, without the determinative *an*, it may possibly signify merely "edifice."

Afarti. $\mathbb{W}\mathbb{F} \mathbb{E}\mathbb{Y} \mathbf{>}\mathbb{F}$ I. 57, 58; III. 50, 53; C. 4; F. 2. "The Susiana." Takes *fa* in plural.

Afartī. $\mathbb{W}\mathbb{F} \mathbb{E}\mathbb{Y} \mathbb{E}\mathbb{Y}\mathbb{F}$ I. 10, 57, 63; II. 2, 5-6, 6-7. "Susiana."

Afartu. $\mathbb{W}\mathbb{F} \mathbb{E}\mathbb{Y} \mathbf{>}\mathbb{E}\mathbb{Y}$ I. 56. "A Susian." Looks like $\mathbb{W}\mathbb{F} \mathbb{E}\mathbb{Y} \mathbf{Y}$ in III. 50; but is not clear. In II. 7, the word is twice written $\mathbf{>}\mathbb{Y} \mathbf{>}\mathbb{F}$, and in vi. 17 apparently $\mathbf{>}\mathbb{E}\mathbb{Y} \mathbb{E}\mathbb{Y} \mathbf{>}\mathbb{F}$. The fact that three different words were used to designate the nation, the territory, and a single individual, appear to justify the opinion that the country and the inhabitants were well known to the speakers of the language. The following quotation from Strabo shows that a people having such a name (for it must be remembered that Amardi is as likely to be the sound of $\mathbb{W}\mathbb{F} \mathbb{E}\mathbb{Y} \mathbf{>}\mathbb{F}$ as the pronunciation given) lived near, if not in Susiana, and they may have given their own name to the people and district:—*Νέαρχος φησι, τεττάρων ὄντων ληστρικῶν ἐθνῶν, ὧν Μάρδοι μὲν Πέρσαις προσεχέεις ἦσαν, Οὄξιοι δὲ καὶ Ἑλυμαῖοι τοῖτοισ τε καὶ Σουσίοις, Κοσσαῖοι δὲ Μήδοις, πάντας μὲν φόρους πράττεσθαι τοὺς βασιλέας, κ.τ.λ. Lib. xi. c. 13. § 6. In section 3, speaking of the Mardi, he says, καὶ γὰρ οὕτω λέγονται οἱ Ἀμαρδοί.*

Akkamannis. $\mathbb{W}\mathbb{F} \mathbf{>}\mathbb{E}\mathbb{Y} \mathbb{E}\mathbb{Y} \mathbf{>}\mathbb{Y} < \mathbf{>}\mathbb{Y} \mathbb{Z}\mathbb{Y}$ I. 4-5. "Hakhámanish," I. 6 (Achæmenes).

Akkamannišiya. 𐎠𐎵𐎠𐎹𐎶𐎠𐎹𐎶𐎠𐎹𐎶𐎠𐎹𐎶𐎠𐎹𐎶 I. 5;

𐎠𐎵𐎠𐎹𐎶𐎠𐎹𐎶𐎠𐎹𐎶𐎠𐎹𐎶𐎠𐎹𐎶 I. 2. "Hakhámanishiya,"

(Achæmonian). The spelling is different, but must be accidental, notwithstanding the difference of number which is expressed in Persian by a change in the termination. The Inscriptions of Xerxes have the same variety, and some insert 𐎶𐎠 before 𐎠𐎹. In the Artaxerxes Inscription we find

𐎠𐎵𐎠𐎹𐎶𐎠𐎹𐎶𐎠𐎹𐎶𐎠𐎹𐎶 "Akamanapša."

Ativa. 𐎠𐎵𐎠𐎹𐎶𐎠𐎹𐎶 I. 17, 25, 26; III. 60. "In," or "among."

Generally expressed in Persian by the locative case: in I. 21 by *atara*, "between," or "among."

Atša. 𐎠𐎵𐎠𐎹𐎶𐎠𐎹𐎶 This root must imply "large:" *atšas-ni*,

III. 87, represented the Persian *danautuwa*, IV. 76, "may he enlarge thee," "prosper thee;" Sanskrit तनु, "to extend;"

atšaiikka, v. 17-18, is *duriya*, "wide," "extended;" a sort of passive participle from the same root, made by the termination *kka*, or else an adverbial form made by *ikka*. In xvi. 13-4, it is replaced by 𐎠𐎵𐎠𐎹𐎶𐎠𐎹𐎶, and in xi. 17-8; xiii. 7; and xv. 8, by

𐎠𐎵𐎠𐎹𐎶𐎠𐎹𐎶𐎠𐎹𐎶𐎠𐎹𐎶; I have supposed those words to be awkward transcripts of the Persian *wazarka*, "great," though no sound is proposed for 𐎠𐎵𐎠𐎹𐎶𐎠𐎹𐎶; perhaps an error of transcription may be suspected: xvii. 7 replaces the word by the true Scythic *irsarra*, "great;" and in vi. 9 we find *irsanna*, a word not found elsewhere, but containing the same Ugrian root, *er* or *ar*, "powerful."

Ata. 𐎠𐎵𐎠𐎹𐎶𐎠𐎹𐎶 vi. 9-10; xi. 18; xiii. 8. This word occurs in

three similar passages, and it precedes a name in each case. In vi. *Ata Vistāšba sakri*; in the others, *Ata Tarigavaus Sakri*. I am inclined to read it "father," "the son of father Hystaspes," "the son of father Darius." Nearly all the Ugrian tongues have such a word, *ata*, *atya*, or *atai*; but there is no corroboration in the Persian text, and the ordinary Scythic word is 𐎠𐎵𐎠𐎹𐎶𐎠𐎹𐎶𐎠𐎹𐎶𐎠𐎹𐎶

attari, "the father," or 𐎠𐎵𐎠𐎹𐎶𐎠𐎹𐎶𐎠𐎹𐎶𐎠𐎹𐎶𐎠𐎹𐎶 *attata*, "my father." Possibly 𐎠𐎵𐎠𐎹𐎶𐎠𐎹𐎶 may be a simple appellative, a sort of vocative, or the difference may be orthographical only, a difference of usage between Behistun and Persepolis, such as we

find in some other words. *Afa* can hardly be a termination to the preceding word *satanika*, as the character \mathbb{W} is thought to be always used as an initial.

Atukannas. \mathbb{W} \mathbb{Z} \mathbb{M} \mathbb{Z} \mathbb{M} II. 53. The name of a month, lost in Persian and Babylonian.

Aṭuṭ. \mathbb{W} \mathbb{Z} \mathbb{E} L. 4-5. One of four objects made by Darius, preceded by the distinctive mark \mathbb{Z} . As there is no Persian copy of this inscription, there is no source known to me from which its meaning may be discovered.

Aṭarrivan. \mathbb{W} \mathbb{Y} \mathbb{K} \mathbb{M} \mathbb{K} \mathbb{Z} II. 57; III. 17, 33, 44, &c. "Followers." In Persian, *anushiyā*. It is always accompanied by the possessive *nitavi*, "his."

Ahinahira. \mathbb{W} \mathbb{Y} \mathbb{Z} \mathbb{Y} \mathbb{Z} \mathbb{E} \mathbb{M} I. 59. "Ænæra," father of Natitabirus, or Nititbaal. The beginning only of the name is found in the Persian text, and the Scythic is not very clear; but the Babylonian version is plainly \mathbb{W} \mathbb{M} \mathbb{H} \mathbb{A} Haniria.

Avak. \mathbb{W} \mathbb{E} \mathbb{Z} vi. 32. Apparently the equivalent of the obscure Persian *chiyakarma*, which may mean "my possession;" if so, *avak* would be a verbalized pronoun, a sort of form not unknown to the Ugrian tongues: "become mine."

Avi. \mathbb{W} \mathbb{E} I. 41; II. 5, 16, 20, &c. "There." Persian *awadā*. In II. 55, *avi-mar* probably means "from thence." The Magyar *am*, in *amig*, and *amarra*, "thereto," is connected with this word.

Avasir. \mathbb{W} \mathbb{Y} \mathbb{M} II. 7, 17; III. 93. The Persian equivalent is *adakiya*, which is very doubtfully rendered by Rawlinson "only," "a little." I make it rather a conjunction, and connect it with *vasnī* "then," *vasisṣin*, "after." The primary signification will then be "when," or "after that," and the secondary "whereas." The clauses in which it occurs are *Hu avasir Affarti inkanna sennigat*, "as I was friendly to the Susians," II. 7; *avasir inni arir*, "when he could not withstand," II. 17; *avasir Yoṣ appi*, &c., "as these men aided me, do thou, O king, favour them," III. 93.

Am. \mathbb{W} \mathbb{E} \mathbb{M} III. 79. The words *arikka am* in this place are clearly the Persian words *arika ahom*, "I was a heretic," transcribed, and not translated.

Anamakkas. 𐎠𐎡𐎢𐎣𐎤𐎥𐎦𐎧𐎨𐎩𐎪𐎫𐎬𐎭𐎮𐎯𐎰𐎱𐎲𐎳𐎴𐎵𐎶𐎷𐎸𐎹𐎺𐎻𐎼𐎽𐎾𐎿 II. 19, 43; III. 26.

The month "Anamaka," which Colonel Rawlinson, with great probability, makes the intercalary month. In a Babylonian calendar recently communicated to me by that gentleman, the month corresponding with *Anamaka* coincides nearly, as he informs me, with the winter solstice. It is preceded in the same calendar by the month answering to *Atriyatiya*; and as in the Jewish calendar the intercalary month is always preceded by *Adar*, which may be connected etymologically with *Atriyatiya*, a possible derivation of one from the other may be inferred. The last-mentioned Babylonian character is read by Colonel Rawlinson *kan*, and it corresponds in time with one of the months called by the Syrians *Kanun*; this may not perhaps be a mere accidental coincidence.

Anīrachitu. 𐎠𐎡𐎢𐎣𐎤𐎥𐎦𐎧𐎨𐎩𐎪𐎫𐎬𐎭𐎮𐎯𐎰𐎱𐎲𐎳𐎴𐎵𐎶𐎷𐎸𐎹𐎺𐎻𐎼𐎽𐎾𐎿 vi. 31, corresponds with the *kāma aha* of the Persian, l. 38. It must be a verb, in the first person singular, "I desired." If the second letter were 𐎠𐎡𐎢, the word would look more probable, *arrachitu*, and be allied to *arikki*, the Persian *kamana*. Perhaps *chitu* may mean "thus." See "Yechitu."

Ariya. 𐎠𐎡𐎢𐎣𐎤𐎥𐎦𐎧𐎨𐎩𐎪𐎫𐎬𐎭𐎮𐎯𐎰𐎱𐎲𐎳𐎴𐎵𐎶𐎷𐎸𐎹𐎺𐎻𐎼𐎽𐎾𐎿 I. 13. "Hariva" (Ariana). Takes *fa* in the plural. See "Arriya."

Arikka. 𐎠𐎡𐎢𐎣𐎤𐎥𐎦𐎧𐎨𐎩𐎪𐎫𐎬𐎭𐎮𐎯𐎰𐎱𐎲𐎳𐎴𐎵𐎶𐎷𐎸𐎹𐎺𐎻𐎼𐎽𐎾𐎿 III. 79; iii. 24. See "Am," above. The same word appears to be converted into a verb, *arikkas*, "became wicked," in I. 25. The cast is indistinct; but I believe the restoration is positive: the Persian is *arika abava*.

Ariki. 𐎠𐎡𐎢𐎣𐎤𐎥𐎦𐎧𐎨𐎩𐎪𐎫𐎬𐎭𐎮𐎯𐎰𐎱𐎲𐎳𐎴𐎵𐎶𐎷𐎸𐎹𐎺𐎻𐎼𐎽𐎾𐎿 I. 42, 78 } "Faithful."

Arikki. 𐎠𐎡𐎢𐎣𐎤𐎥𐎦𐎧𐎨𐎩𐎪𐎫𐎬𐎭𐎮𐎯𐎰𐎱𐎲𐎳𐎴𐎵𐎶𐎷𐎸𐎹𐎺𐎻𐎼𐎽𐎾𐎿 II. 13, 54 } Persian *kamana*.

Arir. 𐎠𐎡𐎢𐎣𐎤𐎥𐎦𐎧𐎨𐎩𐎪𐎫𐎬𐎭𐎮𐎯𐎰𐎱𐎲𐎳𐎴𐎵𐎶𐎷𐎸𐎹𐎺𐎻𐎼𐎽𐎾𐎿 II. 17. The Persian and Babylonian both lost. I do not know a meaning; it is barely possible that it may be connected with *artak*, and that it may signify "he stayed."

Arakka. 𐎠𐎡𐎢𐎣𐎤𐎥𐎦𐎧𐎨𐎩𐎪𐎫𐎬𐎭𐎮𐎯𐎰𐎱𐎲𐎳𐎴𐎵𐎶𐎷𐎸𐎹𐎺𐎻𐎼𐎽𐎾𐎿 III. 36, 38, 44, 45, 58. "Aracus." The Persian *Arakha*.

Arakkaris. 𐎠𐎡𐎢𐎣𐎤𐎥𐎦𐎧𐎨𐎩𐎪𐎫𐎬𐎭𐎮𐎯𐎰𐎱𐎲𐎳𐎴𐎵𐎶𐎷𐎸𐎹𐎺𐎻𐎼𐎽𐎾𐎿 I. 27. "Arakadriah;" name of a mountain.

Alrusini. 𐎠𐎡𐎢𐎣𐎤𐎥𐎦𐎧𐎨𐎩𐎪𐎫𐎬𐎭𐎮𐎯𐎰𐎱𐎲𐎳𐎴𐎵𐎶𐎷𐎸𐎹𐎺𐎻𐎼𐎽𐎾𐎿 vi. 27-8. Very doubtfully read, and meaning uncertain; the last letter may be part of the word *vasni*.

Aṣṣina. $\text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶}$ I. 56, 58, 63 } "Atrina."
 Aṣina. $\text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶}$ C. } A proper name.

The representation of the Persian *tr* by *ss* is here well marked.
 See "Chitra," &c.

Aṣṣiyatiyas. $\text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶}$ I. 70;
 II. 84. The month "Atriyatiya," probably December. See
 "Anamakkas," *supra*. The resemblance of sound of the Coptic
 month *Athyr* may suggest a comparison with *Atriyatiya*; that
 month corresponds now more nearly with November, but the
 Egyptian year was anciently vague.

Aṣṣaka. $\text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶}$ xvi. 13-4, and }
 Aṣakarra. $\text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶}$ xviii. 1 } "Great."

Probably a transcript of the Persian *vazarka*.

Ayuttafa. $\text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶}$ II. 78, 85; III. 34.
 "Became." The phrase is identical in the three instances—
Tahiyahus Hunina ayuttafa, "the province became mine;" in
 Persian, *Dahyaush maná abava*. It is a plural verb (see Gram.,
 p. 89), and may perhaps be connected immediately with the
 verb substantive *yutta*.

Itaka. $\text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶}$ II. 15, 54, 63, 70, 75, 82; III. 9, 32,
 45. "With." In Persian, *hadá*.

Ihutiyas. $\text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶}$ III. 1. "Yutiyá," a pro-
 vince of Persia. I am not sure that the word is not written
 $\text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶}$

Ivaka. $\text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶}$ I. 28, 57, 60; II. 6, 9; III. 2. "He
 arose." The form is neuter continuative, and it may generally be
 rendered "arising." See Grammar, p. 83, 87. In Persian,
udapatatá.

Iyauna. $\text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶} \text{𐎠𐎹𐎶}$ I. 11-2. "Ionia." In the Naksh-i-
 Rostam Inscription, *Yauna*, vi. 23, 24.

A word beginning with 𐎠𐎹𐎶 , in I. 29, must mean "brother." I
 should like to read it 𐎠𐎹𐎶 *uk*, in analogy with the Zyrian *rok*,
 which has the same value; but, though faint, the character is
 certainly 𐎠𐎹𐎶 .

Bakapikna. $\Xi\Upsilon$ $\Delta\Upsilon$ $\Phi\Upsilon$ $\rightarrow\Upsilon\Xi$ $\Xi\Upsilon$ III. 91. Persian
Bagabigna.

Bakapuka. $\Xi\Upsilon$ $\Delta\Upsilon$ $\Xi\Upsilon$ $\Xi\Upsilon$ Υ III. 91. Persian
Bagabuksha.

Bagayatis. $\Xi\Upsilon$ $\rightarrow\Upsilon\Xi$ $\Xi\Upsilon$ $\rightarrow\Upsilon$ $\Xi\Upsilon$ I. 41. The month
 "Bagayadish." I have no clue to the season.

Bakais. $\Xi\Upsilon$ $\rightarrow\Upsilon$ $\Phi\Upsilon$ $\Xi\Upsilon$ I. 13; II. 85

Baiktarris. $\Xi\Upsilon$ $\rightarrow\Upsilon\Xi$ $\Xi\Upsilon$ $\rightarrow\Upsilon\Upsilon$ $\Xi\Upsilon$ vi. 17 } "Bactria."

Batin. $\Xi\Upsilon$ $\rightarrow\Upsilon$ $\Xi\Upsilon$ II. 45; III. 28. "A province," "district."

In Persian *dahyaush*, used as the designation of a district named. When the Persian word is employed to mean a province in a larger sense, the Scythic transcribes the word without translating it.

Batar. $\Xi\Upsilon$ $\Xi\Upsilon$ I. 72; III. 80, "When (?) " The meaning is very doubtful; in I. 72, the clause is *batar* \rightarrow *Bapilu inbalu va pugatta*, and the Persian must signify "when I approached [or reached] Babylon;" but the passage is mutilated, and the word following Babylon in the Persian is gone. In III. 80, the Persian and Babylonian afford no help, and the Scythic inscription is mutilated and uncertain.

Barušanam. $\Xi\Upsilon$ $\Xi\Upsilon$ $\Upsilon\Upsilon$ $\rightarrow\Upsilon$ $\Xi\Upsilon$ xi. 16 (probably an error of the copier for *barušananam*). Replaces the more usual *parrušananam*, q. v.

Barsa. $\Xi\Upsilon$ $\Xi\Upsilon$ Υ xv. 13. "Persepolis." The preceding \rightarrow , the demonstrative pronoun, and the postposition, \rightarrow *Barsa ye va*, quite justify the rendering of Rawlinson, "in this Persepolis," or "in this Persia." I rather prefer Persia, the Babylonian copy having \rightarrow Υ Υ $\rightarrow\Upsilon\Upsilon$, with the determination of country, not city. The correction of Oppert, "avec cette Perse, aidé par ce peuple perse," is shewn to be inadmissible.

Balu. $\Xi\Upsilon$ $\Xi\Upsilon$ I. 72. See "Inbalu."

Baluikvaša. $\Xi\Upsilon$ $\Xi\Upsilon$ $\rightarrow\Upsilon\Xi$ Υ Υ I. 52, 53. "I laboured;" *hamatakshiya* in Persian. Both words are faint and uncertain. In III. 81, there is a word which I am inclined to read *baluin-parrusta*, in Persian *hamatakeshatā*, "he laboured;" although the first letter is very faint, as much like *va* as *ba*, and the next rather more like $\rightarrow\Upsilon$ *tu* than $\Xi\Upsilon$ *lu*.

Pafa. < 𐎱𐎠𐎼𐎿 Root signifying "rebel," or "revolt."

Pafatas, "he caused to rebel," III. 53, 54, 59, 61-2.

Pafatassa, ditto, continuative, III. 50.

Pafatis, ditto, III. 52.

Pafatifa, "rebelliing," plural, II. 2, 11, 70; III. 3, 5, 61, 62.

Pafaraska, "having rebelled," singular, II. 59.

Pafatifaba, ditto, plural, II. 68, 79; III. 38.

Patifa, "rebels," II. 23, 24, 39, 40, 62; III. 27. This word must be from the same root, and it is, I suspect, a contraction for *pafati-fa*. I think *pafaraska* too should be *pafatiraska*. The true root was probably *pafat*.

Pafatusta. < 𐎱𐎠𐎼𐎿 𐎠𐎹𐎶 𐎠𐎹𐎶 𐎠𐎹𐎶 vi. 3, 3-4. "He hath made." Replaces *pasta*, which is more commonly found.

Pafaraka. < 𐎱𐎠𐎼𐎿 𐎠𐎹𐎶 𐎠𐎹𐎶 L. 8. This word may signify some communication of intelligence to the people, but there is as yet no clue to the exact meaning.

Pafalufa. < 𐎱𐎠𐎼𐎿 𐎠𐎹𐎶 𐎱𐎠𐎼𐎿 III. 46. "They were slain." Persian apparently *asariyatā*. *Pafalufaba*, I. 68, "having slain," or "attacked." Persian lost.

Patifa, "rebels." See "Pafa."

Patikrabbana. < 𐎱𐎠𐎼𐎿 𐎠𐎹𐎶 𐎠𐎹𐎶 II. 75. Persian "Patigrabanā," the "Patigran" of Ammianus. See Colonel Rawlinson's note, p. v.

Patu. < 𐎱𐎠𐎼𐎿 I. 21. The reading is doubtful, but the meaning probably "I obtained." In II. 57, 67, if I divide the words correctly it will mean "I affixed;" *atrur-va 'r patu*, "I placed him on the cross. See also I. 68.

Pat. < 𐎱𐎠𐎼𐎿 III. 48, 60. "Battles;" but the second letter is doubtful. See "pavas." The Scythic *parā*, "to kill," may possibly have some connection with this word.

Pathapis. < 𐎱𐎠𐎼𐎿 𐎠𐎹𐎶 𐎠𐎹𐎶 L. 10. Meaning uncertain; and very possibly the *pa* may be the case-ending of the word preceding.

Pathafati. < 𐎱𐎠𐎼𐎿 𐎱𐎠𐎼𐎿 𐎠𐎹𐎶 I. 66. "They had arrived," *aishatatā* in Persian; but the Scythic reading is very doubtful.

Pahutiya. < 𐎱𐎠𐎼𐎿 𐎠𐎹𐎶 𐎠𐎹𐎶 vi. 25. This is the most obvious restoration of the name, and the most nearly resembling the Persian *Putiyā* and Babylonian *Bahudā*. Nothing is added but the

Pirka. 𐎱𐎠𐎼𐎿 𐎠𐎹. Follows the name of the month in every case but II. 47, where the end of the month is expressed without figures. As the Persian omits in this case the words *thakatá aka*, which are found in every other instance, *Pirka* may signify "then it was;" the Babylonian appears to have no equivalent.

Pis. 𐎱𐎠𐎼𐎿 𐎠𐎹 vi. 47. This may be 𐎱𐎠𐎼𐎿 𐎠𐎹. It means "path." P., *pathim*.

Pugatta. 𐎱𐎠𐎼𐎿 𐎠𐎹𐎠𐎹𐎠𐎹 𐎠𐎹𐎠𐎹𐎠𐎹 I. 72, 79. "I arrived." The Persian is mutilated in both cases, but enough remains to show that the words were not alike. The Scythic, in I. 79, is by no means clear.

Puttana. 𐎱𐎠𐎼𐎿 𐎠𐎹𐎠𐎹𐎠𐎹 𐎠𐎹 I. 77. "I drove," or something similar. Persian defective.

Putraaka. 𐎱𐎠𐎼𐎿 𐎠𐎹𐎠𐎹𐎠𐎹 𐎠𐎹 I. 78; II. 54; III. 13. "Having gone, marched." This verb and the preceding *puttana* may be from the same root, *put*, "to go," with the causative *tā* in the former: *putta*, "cause to go."

Puinkīta. 𐎱𐎠𐎼𐎿 𐎠𐎹𐎠𐎹𐎠𐎹 𐎠𐎹𐎠𐎹 II. 47. *Puinkīta-va*, "at the close," *va* being the postposition. The Babylonian <<<, "the thirtieth day of the month," l. 56, proves the rendering.

Parpis. 𐎱𐎠𐎼𐎿 𐎠𐎹𐎠𐎹𐎠𐎹 III. 43. "He captured." The word may be *farpis*; I should like to make it *afpis*, but the first character will hardly do, and the Babylonian version has "made prisoners."

Parthuva. 𐎱𐎠𐎼𐎿 𐎠𐎹𐎠𐎹𐎠𐎹 𐎠𐎹 I. 12; II. 3; vi. 17. "Parthia." Takes the plural *fa* in the two first cases. *Parthuvās* 𐎱𐎠𐎼𐎿 𐎠𐎹𐎠𐎹𐎠𐎹 in II. 68, 69, 71, 75, 78.

Paraka. 𐎱𐎠𐎼𐎿 𐎠𐎹𐎠𐎹𐎠𐎹 𐎠𐎹 III. 14. *Parga*, called "a hill" in Persian, but the Scythic has *afṭ*, "a town." The first letter may be 𐎱𐎠𐎼𐎿, the second is quite gone, the third is pretty clear.

Parrasta. 𐎱𐎠𐎼𐎿 𐎠𐎹𐎠𐎹𐎠𐎹 III. 81. See "*Baluikvaśa*."

Parsan. 𐎱𐎠𐎼𐎿 <<< I. 1, 5, 10, 30, 34; II. 2, 5, 12; III. 2, 7, 8, 19, 35. "Persia."

Parsar. 𐎱𐎠𐎼𐎿 𐎠𐎹𐎠𐎹𐎠𐎹. "A Persian." Followed by *kir* in II. 14, 38, 80; III. 6, 52. Followed by *ra* in III. 21-2, 57, 90, 91, 92.

Farpis. 𐎱𐎠𐎼𐎿 𐎠𐎹𐎠𐎹𐎠𐎹. See "*Parpis*."

Fartiya. 𐎠𐎼𐎫𐎡𐎹 I. 23, 24, 28, 38, 39; III. 2, 9, 20, 49, 57-8, 93. "Smerdis." Persian *Bardiya*.

Farvana. 𐎠𐎼𐎫𐎡𐎹𐎶 I. 16. I read doubtfully in this passage *anuas farvana*, "by day and night;" but the words are mutilated, and the division quite uncertain.

Farraka. 𐎠𐎼𐎫𐎡𐎹𐎶𐎵. See "Parraka."

Farrata. 𐎠𐎼𐎫𐎡𐎹𐎶𐎵 II. 79. "Frada" (Phraates).

Farravatarem. 𐎠𐎼𐎫𐎡𐎹𐎶𐎵𐎶𐎵𐎶𐎵𐎶𐎵 v. 11-2. Transcript of the Persian *framātaram*, "a lawgiver." In xv. we find *framattaram*, and in xvi. *framatorana*, but the copies are probably erroneous, particularly the last.

Farravvantim. 𐎠𐎼𐎫𐎡𐎹𐎶𐎵𐎶𐎵𐎶𐎵𐎶𐎵 vi. 27. A possible correction of Westergaard's 𐎠𐎼𐎫𐎡𐎹𐎶𐎵𐎶𐎵𐎶𐎵𐎶𐎵; and, if so, it will be a transcript of the Persian *paravādīm*.

Farruvartia. 𐎠𐎼𐎫𐎡𐎹𐎶𐎵𐎶𐎵𐎶𐎵𐎶𐎵 III. 53. "Fravartish" (Phraortes), a Median.

Farruirsarrafaba. 𐎠𐎼𐎫𐎡𐎹𐎶𐎵𐎶𐎵𐎶𐎵𐎶𐎵 II. 24, 32, 40, 44; III. 27. "Assembling." Plural participle; *fa* makes the plural, and *ba* is gerundial. In II. 28, *ap* replaces *fa*. *Irsarra*, "great," is perhaps a component part of this word, which is always accompanied by *irva šinnīfa*, meaning together, "they assembling returned to him;" in Persian *hagamātā paraitā*.

Farsatanika.	𐎠𐎼𐎫𐎡𐎹𐎶𐎵𐎶𐎵𐎶𐎵𐎶𐎵	v. 18; vi. 9(?)	{ "Far," "wide," 'extended.' }
Farsatinika.	𐎠𐎼𐎫𐎡𐎹𐎶𐎵𐎶𐎵𐎶𐎵𐎶𐎵	xi. 18; xv. 9; xvi. 14	
Farsattinika.	𐎠𐎼𐎫𐎡𐎹𐎶𐎵𐎶𐎵𐎶𐎵𐎶𐎵	xvii. 7-8	
Farsattinika.	𐎠𐎼𐎫𐎡𐎹𐎶𐎵𐎶𐎵𐎶𐎵𐎶𐎵	xiii. 8	

This represents the disputed Persian *apiya*, which I believe to be connected with the Greek *ἀπὸ*, "from;" or perhaps with the Sanskrit 𑖦𑖯𑖪𑖨, of which the primary signification is "to reach;" so that the meaning of the phrase so often repeated at the close of all the introductory passages, will be "king of this great earth, far and wide," instead of the "far and near" of Benfey, who is followed by Oppert. *Satanika*, in vi. 36, 37, has certainly the meaning of "extent," "distance;" and in vi. 9, Westergaard has given *satanika* for the usual *farsatanika*, though

an error may be suspected here, the perpendicular wedge having been possibly copied instead of ΞV . Still I believe the words are connected. See "Satanika."

Pat. We have the word $\Xi\text{V} \langle \Xi \rangle \langle \Xi \rangle \langle \Xi \rangle \Xi\text{V}$, which I have called *passankita*, in I. 46, 49, 52; the impression is faint in every case; the Persian equivalent seems to be *avastāyom*, "I established."

Ap. ΞV . "Them," before a verb. See Grammar, p. 71.

Apbaniyakka. $\Xi\text{V} \Xi\text{V} \langle \Xi \rangle \Xi\text{V} \Xi\text{V} \Xi\text{V}$ xviii. 3. This is certainly a transcript of a Persian word *apaniyaka*, "a remote ancestor," from the preposition *apa* and *niyaka*, "a grandfather." See "Niyakka" below.

Appi, appin, apin, &c. $\Xi\text{V} \Xi\text{V} \Xi\text{V}$. "These," "them." See Grammar, pp. 71, 73. In III. 61, *appi* certainly seems to signify "a god," without the celestial determinative *an* (see "Annap;") but the passages are mutilated in all the three languages.

Appinī. $\Xi\text{V} \Xi\text{V} \Xi\text{V}$. "Constituted," "appointed." Usually combined with the verb *yutta*, I. 10; II. 14, 61, 80; III. 21, 40. The Persian equivalent is always understood, and in III. 30, it is understood in the Scythic also. In II. 8, it is joined with *tiristi*, instead of *yutta*, "who had been named their leader." In II. 58, *appinī* is joined with some unknown words, in a sentence of which the Persian is lost.

Appir. $\Xi\text{V} \Xi\text{V} \Xi\text{V}$. In I. 60, the word appears wholly superfluous, but must signify "to them," the Babylonians. In III. 94, it may have a similar meaning.

Appuka. $\Xi\text{V} \Xi\text{V} \Xi\text{V}$ I. 7. "Before," "heretofore." *Appuka* is followed by the indefinite *ta* in I. 47, 51, 52, meaning "at any previous time."

Appattu. $\Xi\text{V} \langle \Xi \rangle \Xi\text{V}$ III. 81, 82, 83-4. Always followed by *ikkimmas*; the combination may mean "utterly," but the passages are defective, and in Persian almost entirely gone.

Appatna. $\Xi\text{V} \langle \Xi \rangle \Xi\text{V}$ I. 47. See "Anchiya."

Appo. $\Xi\text{V} \Xi\text{V}$ "who," "which." See Grammar, p. 74.

Apvatas. 𐰽𐰺 𐰺𐰸 𐰽𐰺 𐰽𐰺 II. 25, 71, 82. Always joined with battle, and must mean "he fought." The verb may be *vata*, and *ap* the pronoun; but I rather think we have *ap* with the postposition *va*, and the verbal ending. See p. 110.

Apin. 𐰽𐰺 𐰺𐰺. The same as "Appin."

Apr. 𐰺 𐰽𐰺 𐰽𐰺 I. 28. See the note on the passage, in p. 100.

Afpi. 𐰽𐰺 𐰺𐰺. "To kill," "defeat."

Hu afpi, "I slew," I. 76; II, 53. *Afpiya*, idem, I. 44; III. 49.

Afpis, "he killed," I. 24, &c.; "they killed," II. 8, &c.

Afpis, imperative, III. 23.

Afpis-vanka, "defeat thou," II. 23, 39; "defeat ye," II. 15, 62; III. 41. Where the command is given to a man by name, we have *afpis-ni-vanka*, II. 82; *ni*, "thou," shewing that *vanka* is a separate particle.

Afpis-ni, "may he smite thee," III. 76, 88.

Afpik, I. 32; *afpika*, I. 24, "he was killed."

Afpipa . . . (𐰽𐰺 𐰺𐰺 𐰽𐰺 . . . 𐰺𐰺), a mutilated word, which may signify "desirous of death."

Afarti. 𐰽𐰺 𐰺𐰺 𐰺𐰺 II. 7. "The Susians." So written twice; occurs twice with 𐰺𐰺 in the line preceding. See "Afarti."

Aftita. 𐰽𐰺 𐰺𐰺 𐰺𐰺 III. 36. The *Haṇḍita* of the Persian. See Rawlinson's Notes, page v. I should like to read 𐰽𐰺 𐰺𐰺 𐰺𐰺, *Antita*, for the initial is obscure; but it must be admitted that the first syllable is doubtful in Persian. In Babylonian the word is lost.

Aftiyavanyahi. 𐰽𐰺 𐰺𐰺 𐰺𐰺 𐰺𐰺 𐰺𐰺 I. 40-1. I believe this is a transcript of the Persian *patiyavahi*, I. 55.

Aftufarti. 𐰽𐰺 𐰺𐰺 𐰺𐰺 vi. 17. "Susiana." See "Afarti."

Afs. 𐰽𐰺 I. 72; II. 5, 16, 50, 75; III. 1, 8, 37. "A town." The Persian equivalent is always *vardanam*, except in the last instance, where it is *dahyaush*. The Ostiak, Mordwin, and Wogul words are *vosh*, *uzh*, *osh*, *vazh*, &c. I do not know whether they may be connected etymologically.

Afvarris. 𐰽𐰺 𐰺𐰺 𐰺𐰺 II. 29, 33, 57-8. "A fortress." In Persian *dida*. It is written *afvarrus* in L. 8. Magyar, *var* and *varos*, "fort" and "city."

Afchova. >𐎠𐎡𐎢𐎣𐎤 III. 82. I should expect a verb of the third person singular here, meaning perhaps, "he injured;" but it looks more like a first person.

Pera. >𐎠𐎡𐎢𐎣𐎤 II. 58. "I hanged." The Persian (see Rawlinson's Notes, p. iv) has *fráhajam*. The Ostiak *perna* is "a cross," but the sound given to the first character is quite conjectural. See the next word.

Peri. >𐎠𐎡𐎢𐎣𐎤 II. 55, 65. "Ears." Persian *gousha*. The Zyrian word is *pele*; the Magyar, *fül*; the Mordwin, *pile*; but the sound *pe* being only a guess, the analogy is more than doubtful. Precisely the same characters occur in III. 68, but the word cannot be the same; the Persian equivalent is *hashiyam*, which has not been interpreted; it may be "a report," "narrative," "a thing heard," and so far connected with "ears."

Poke. 𐎠𐎡𐎢𐎣𐎤 I. 67, 68. Uncertain in both cases, in reading as well as in meaning. The Persian also is very doubtful. The most probable sense is perhaps "the enemy."

Pori. 𐎠𐎡𐎢𐎣𐎤 I. 24; II. 12, 49, &c. "To go." Found in many forms: *poriya*, "I went;" *poris*, "he went;" *porik*, *porikka*, *porifu*, &c. &c. (see Grammar). I believe *inporugat*, II. 50, is from the same root. The Cheremiss root *por* or *pur* signifies "to enter;" and this may be a corroboration of the sound given to 𐎠𐎡.

Kappissakanis. >𐎠𐎡𐎢𐎣𐎤 𐎠𐎡𐎢𐎣𐎤 III. 24. *Kápišhkánish*. Name of a fort in Arachosia. The additional syllable *sa*, in *Kappissa*, is corroborative of Colonel Rawlinson's conjecture, as to the compound character of this name.

Kaṭa-va. >𐎠𐎡𐎢𐎣𐎤 I. (46), (49), 52. Represents the Persian *gáthwá*. See "Atka."

Kaṭbatukas. >𐎠𐎡𐎢𐎣𐎤 >𐎠𐎡𐎢𐎣𐎤 I. 12. *Katpartuka*, >𐎠𐎡𐎢𐎣𐎤 vi. 22. Both forms are mere transcripts of the Persian *Katpatuka*. The third letter in vi. 22 may be >𐎠𐎡, making *Katbatuka*.

Kamaś. >𐎠𐎡𐎢𐎣𐎤 I. 67. A word very doubtfully read: may mean "a ship" or "boat," and be thus allied to the *kaba* and *kap* of the Wogul.

Kani, "to befriend." See "Inkanni."

Kara-ta. $\text{𐰇𐰺} \text{𐰇𐰺𐰍} \text{𐰇𐰺}$ I. 6, 33. "Time." There cannot be much doubt that we have here the proper division: the root is *kara*, allied to the Magyar *kor*; *ta* is the indefinite, as in *sassa-ta*. The *takarasti* of III. 87, "long life," may contain the same root.

Kaik. $\text{𐰇𐰺} \text{𐰇𐰺𐰍}$ vi. 28. I make nothing of this; it looks like a postposition, and may be only a variation of the next word.

Kik. $\text{𐰇𐰺} \text{𐰇𐰺𐰍}$ III. 7. "After." The Persian *pasá* has this meaning; the Babylonian version is "with." In either sense we have possibly a syllable connected with the Tartar *kik*, *iki*, "two."

Kitinti. $\text{𐰇𐰺} \text{𐰇𐰺𐰍} \text{𐰇𐰺} \text{𐰇𐰺}$ III. 76, 89. The division here must be *kiti inti*, "be it to thee," *sit tibi*; but there is no other example of the word *kiti*. See "Nikti."

Kitüva. $\text{𐰇𐰺} \text{𐰇𐰺𐰍} \text{𐰇𐰺}$ II. 56, 65. "I smote." We have altogether *reṭakitüva*, in both instances; I think it is the first person singular of a verb, but it may be a noun in the locative case.

Kir. $\text{𐰇𐰺} \text{𐰇𐰺𐰍}$ v. 9. "One." The occurrence of this word as an equivalent to the Persian *aivam*, the Zend *aiva*, is decisive of its being a numeral. It is frequently used as an indefinite article, as the numeral is used in French, Italian, German, &c. See II. 4, 9, 13, 22, 36, 38; III. 51, 52. In all these cases it is preceded by the sound of *r*, as in *Parsarkir*, *Bapilurkir*, &c., "a Persian," "a Babylonian."

Kukkannakan. $\text{𐰇𐰺} \text{𐰇𐰺𐰍} \text{𐰇𐰺𐰍} \text{𐰇𐰺} \text{𐰇𐰺} \text{𐰇𐰺}$ II. 5. "Kuganaká." Name of a town in Persia.

Kukta. $\text{𐰇𐰺} \text{𐰇𐰺𐰍} \text{𐰇𐰺𐰍}$. "To cherish," "preserve."

Kuktainta, "thou preservest," III. 86.

Kuktas, "preserve thou," the imperative, III. 85, 94.

Kukti, "I favoured," I. 17-8; III. 81. I should have expected *kukta* or *huktaya*.

Kuktak, I. 19. The passage is imperfect, but the word certainly signifies "favoured" or "preserved."

Kukirti, III. 88. The word is not clear, but the value is the same as that of *Kuktainti* above.

Kutis. $\text{𐰇𐰺} \text{𐰇𐰺𐰍} \text{𐰇𐰺}$ I. 16; vi. 15. "They brought." The word in vi. 34, which is doubtfully read *kutvatti*, is no doubt from the same root; both are rendered by the same Persian verb *bar*.

Kutkaturrakki. 𐎧𐎺 𐎠𐎹 𐎠𐎹 𐎠𐎹 𐎠𐎹 𐎠𐎹 𐎠𐎹 𐎠𐎹 𐎠𐎹

I. 46, 51. "Had been taken away." This is obviously a participial form, and the mutilated word at the close of the paragraph, l. 54, looking like *kuktatur* . . . must be a form from the same root. It is probably connected with *kutis*.

Kutta. 𐎧𐎺 𐎠𐎹 𐎠𐎹. "And," "also," *passim*. Used sometimes alone, sometimes after *hiak*. I hardly see any difference between *hiak* and *kutta*; but the first begins a sentence frequently, which the latter never does.

Kutvatti, vi. 34. See "Kutis."

Kunṭarrus. 𐎧𐎺 𐎠𐎹 𐎠𐎹 𐎠𐎹 𐎠𐎹 II. 50. Name of a city of Media: *Gudrush* in Persian; *Kunduru* in Babylonian.

Kuras. 𐎧𐎺 𐎠𐎹 I. 39; III. 50, 58, 93; i. 1. "Cyrus."

Kus. 𐎧𐎺 𐎠𐎹. "While," "until," *passim*. May be allied to the Zyrian *kor*, and Wotiak *ku*, which have the same signification. See Matt. xxi. 1.

Kuṣi. 𐎧𐎺 𐎠𐎹. I adopt Westergaard's rendering of this word. *Kuṣiya*, "I have built," iii. 11-2; *kuṣik*, iii. 10, *kuṣika*, iii. 8, 15, "built." The difference between *kuṣik* and *kuṣika* may be, that the first comes before a consonant, and the other precedes a vowel; the first looks more remote in tense than the last, but this is unlike Ugrian usage, and not so probable as the first explanation. I believe that traces of a like euphonic principle may be found in the Behistun Inscription.

Gauparva. 𐎧𐎺 𐎠𐎹 𐎠𐎹 III. 90. "Gaubarva" (Gobryas).

Gaumatta. 𐎧𐎺 𐎠𐎹 𐎠𐎹 𐎠𐎹 I. 32-3, 37, 40, 42, 49, 53, 55-6; III. 49, 92-3. "Gaumata."

Gafar. 𐎧𐎺 𐎠𐎹 vi. 29. The word wanted here should signify "I am;" it might have been 𐎧𐎺 𐎠𐎹, the root of the verb "to be." In parts of the Behistun Inscription 𐎧𐎺 looks like 𐎧, where the cast is faint.

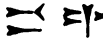
Kanpuchiya. 𐎧𐎺 𐎠𐎹 𐎠𐎹 𐎠𐎹 I. 22, 23, 24, 29, 31, 33, 34. *Kabujiya*, "Cambyses."


Kantara. 𐎧𐎺 𐎠𐎹 𐎠𐎹 vi. 19. "Gandara" (Gandaria). In Column I. 13, the Scythic equivalent for "Gandaria" is

mutilated: nothing is now left but the termination *thant*, and the whole word was in all probability *Parrupamithana*, as in Babylonian.


Kantua . . .  III. 28. "Gadutava," name of a district. The first letter is made by inadvertence , and the last letter is quite lost; *va* also is uncertain; it may be *tu*.


Kannī. See "Inkannī."


Karpi.  III. 62. "The hand." Mordwin *ked*, Wotiak *ki*, &c. The passage is, *Auramasta karpi Hunina va appin yuttas*, "Ormasd gave them into my hand." The postposition *va* comes after the possessive pronoun; hardly in accordance with Ugrian usage, though we have just such a construction in II. 56, 66.


Karkap.  vi. 25. The people called "Karaká," or "Karká" in Persian; *ap* makes the plural.


Kartas.  I. 48. Some religious office, apparently the *mániyam* of the Persian.


Karraş.  I. 68. Meaning unknown; the Persian is defective, all that is left of the equivalent word being *asm*....

Karás.  I. 27. "A mountain." The Wotiak *gurex* is allied to this word; and the several terms, in languages of all classes, in which the elements *g-r* and *k-r* occur, may be etymologically connected.

Garmapatas.  I. 31; II. 76-7; III 16. Name of a month. Probably corresponds with July.

Akka.  "Who," "he who," "the." See Grammar, pp. 73, 74.

Akkari.  I. 39. "Every one." Persian *chish-chiya*. The word occurs again in III. 82, but may be part of a larger word *akkariukga*: the Persian is very defective, and gives no help.

Ikka, ikki.  "In," "at," &c. See Grammar, p. 64. Is used in combination with *mar*, meaning "from" "by," after pronouns. See "ikkamar," vi. 14, 15; "ikkimar," II. 7, 11, 59.

Ikkinmas. 𐎠𐎫𐎼𐎿 𐎠𐎡𐎹 𐎠𐎡𐎹 𐎶. See "Appattu," *ante*.

Iktaka. 𐎠𐎫𐎼𐎿 𐎠𐎡𐎹 𐎠𐎡𐎹 III. 75. Appears to be the same word as *taka* in III. 87. See "Takarastinī."

Iksirsa. 𐎠𐎫𐎼𐎿 𐎠𐎡𐎹 𐎠𐎡𐎹 𐎶 xv. 10, 17. "Xerxes." Is written 𐎠𐎫𐎼𐎿 𐎠𐎡𐎹 𐎶 in xii. 1.

Ukbatarranma. 𐎠𐎫𐎼𐎿 𐎠𐎡𐎹 𐎠𐎡𐎹 𐎶 𐎠𐎡𐎹 𐎠𐎡𐎹 I. 56. "Upadarma," the father of Atrines.

Ukku. 𐎠𐎫𐎼𐎿. This word must certainly signify "great." It occurs in v. 17.: Ko 𐎠 Murun ye ukku va, "King in this great earth:" in Persian, *ksháyathiya ahyáyá bumiya vázarkáya*. In the Xerxes inscriptions the phrase occurs without *va*, the small wedge before *murun* apparently serving as an equivalent. In iii. 4 and vi. 9 we have *ukkurarra*. The same word occurs twice in L. 5, as epithets of two substantives of unknown signification, and once in III. 80, where the scope of the passage is also very uncertain.

Ukga. 𐎠𐎫𐎼𐎿 𐎠𐎡𐎹 III. 82. See "Akkari."

Ko. 𐎠𐎫𐎼𐎿. "A king," *passim*. I have read *Ko*, but, for reasons before stated, this cannot have been the sound. It might have been *khan*, and I think I should have so written it, had it not occurred in the forms of 𐎠𐎫𐎼𐎿 𐎶 and 𐎠𐎫𐎼𐎿 𐎶, in the Artaxerxes Inscriptions. The word takes *fa* in the plural, which is against the sound of both *k* and *s*. See I. 6, 7, 8; III. 60, 72. For the genitive singular, see III. 23; xviii. 1-2. The genitive plural takes *fainna*, I. 1, ii. 2, and all the Xerxes Inscriptions; and *fairra*, in v. 14, vi. 7. The Artaxerxes Inscription has *inmafa*, xviii. 1. The factive *Ko-vas* is found everywhere; it occurs without *vas* in II. 80.

Kovas. 𐎠𐎫𐎼𐎿 𐎶 I. 7, 9, 21, 45. "Kingdom," "empire."

Kwepoka. 𐎠𐎫𐎼𐎿 𐎠𐎡𐎹 𐎠𐎡𐎹 II. 58; iii. 23. The word looks like a participle, and may allude to "confinement," "imprisonment." In both cases it occurs in sentences containing unknown letters, and without Persian equivalents.

Ta. 𐎠𐎡𐎹. Indefinite particle. See Grammar, p. 72.

- Takaparra. $\Xi-\Pi \supset \Pi \supset \Xi$ vi. 24. Takes the plural *pa*. A transcript of the Persian *Takabard*.
- Takarasti-nī. $\Xi-\Pi \supset \Pi \supset \Xi$ III. 87. The meaning is "may thy life be long," but I cannot analyse it. A similar Persian sentence is made by *iktaka takti-nī*, in III. 75, equally difficult; perhaps in the latter example *ik* may belong to the preceding word, and we may have *taka takti-nī*.
- Tatarṣis. $\Xi-\Pi \Xi \supset \langle \Pi \supset \Xi$ II. 21, 23, 24, &c. "Dadar-shish," an Armenian, general of Darius.
- Tatṣaram. $\Xi-\Pi \supset \Pi \supset \Xi$ ii. 6. Transcript of the Persian *Tucharam*.
- Tattuvanya. $\Xi-\Pi \supset \Xi \supset \Xi \supset \Xi$ III. 91-2. Persian "Dádunya. The Zopyrus (?) of the Greeks.
- Tatām. $\Xi-\Pi \supset \Xi \supset \Xi$ vi. 16. Transcript of the Persian *dátam*, "what is given," i.e. "the law."
- Tahie. $\Xi-\Pi \Pi \supset \Xi$ I. 26, 30, 35, 50, &c. "Other," "further" (*cætera*, not *alia*). It is generally put after its noun (see Grammar, p. 77), and with a plural value; but in a more decidedly plural expression, III. 79, we have a plural form *tahifapa*, like *marrifapa*. The indefinite *tahieṭa* occurs in xv. 12, "any other whatever." In L. 3, it takes the adverbial ending *ikki*, making *tahieikki*, "elsewhere;" and this is perhaps the form which receives the indefinite particle *ta*, in III. 69; *tahikita*. From these examples the root appears to be *tahi*, exactly like the Turkish *dakhi*, of the same meaning.
- Tahiyaus. $\Xi \Pi \Xi \langle \supset \Xi$ I. 1; II. 20, &c. Transcript of the Persian *dahyaush*, "a province." Written *tahiyahus* in II. 77-8, III. 68; and *tahihus*, ii. 3, iii. 3, vi. 8. It has frequently a plural value, but never the plural form at Behistun; takes *pa* for the plural elsewhere.
- Tahuvanlufa. $\Xi-\Pi \supset \Xi \supset \Xi \supset \Xi$ III. 93-4. Appears to mean "aiding," in the plural. See "Tayufa."
- Tavatak. $\Xi-\Pi \Xi \Xi \Xi-\Pi \supset \Xi$ I. 72. I do not know if this is the correct separation, or if the word be "Satavatak," *q. v.*
- Tavini. $\Xi-\Pi \langle \Xi \langle \Pi$ II. 70, in a passage of which the Persian is lost. The meaning is certainly "belonging to him," or "with him," or something similar; and I am tempted to suppose it a transposed form of *nitavi*, "his."

Taven. 𐭠𐭡𐭣 > 𐭠𐭡𐭣𐭣 II. 13, 38, 61; III. 6, 40. "I sent out." As the sound of the final syllable is entirely unknown, I am unable to say if this word is in the regular form of the verb; perhaps we may conclude something from this, and read it *nu*, a syllable not found in our alphabet. Where the word would be found in the third person, III. 24, it is unfortunately lost. It is usually accompanied by *tifapa*, with sometimes an intervening word or two; excepting in II. 55, and perhaps I. 67.

Tanas. 𐭠𐭡𐭣 > 𐭠𐭡𐭣𐭣 ii. 3-4; vi. 8; xvii. 6-7. "People." Probably a transcript of the Persian *zana*.

Tanifa. 𐭠𐭡𐭣 < 𐭠𐭡𐭣𐭣 vi. 14. Of uncertain meaning; it is probably a plural participle, and by some rather violent emendations and guesses the passage in which it occurs may be made *Hu-ikki-var tanifa*, "compelled by me," or "influenced by me;" but there is no authority for this, and the word *tanifa* is not found elsewhere. May the half-effaced word in II. 7, which I have read *fanifa*, be the same as this?

Tariyavans. 𐭠𐭡𐭣 > 𐭠𐭡𐭣𐭣 𐭠𐭡𐭣𐭣 𐭠𐭡𐭣𐭣 < 𐭠𐭡𐭣𐭣. "Darayavush" (Darius).

Tas. 𐭠𐭡𐭣 𐭠𐭡𐭣 "He was," or "he made." See Grammar, p. 81.

Tasta. 𐭠𐭡𐭣 𐭠𐭡𐭣 𐭠𐭡𐭣 vi. 2. "He hath made." The word occurs twice in this line, in a sentence where we usually find *pasta*. Notwithstanding the difference of orthography, I think the word is merely the preceding *tas* with the indefinite *ta* added.

Tayufa. 𐭠𐭡𐭣 > 𐭠𐭡𐭣𐭣 𐭠𐭡𐭣𐭣 III. 92. "Accompanying," "aiding," in the plural. Seeing the frequent interchange of *hu* and *yu*, it is not improbable that this word may be allied to *takuvanlu* of I. 93.

Tifapa. > 𐭠𐭡𐭣 𐭠𐭡𐭣𐭣 > 𐭠𐭡𐭣𐭣. The meaning must be "on a mission," or something of similar import. See "Taven," above. In L. 7-8, where we have *tifaba pafaraka*, the signification must be similar, but I have no clue to the separation of the words, and there is no Persian text.

Tikra. > 𐭠𐭡𐭣 > 𐭠𐭡𐭣𐭣 > 𐭠𐭡𐭣𐭣 I. 66, 69. The river Tigris. Persian *Tigrá*. The same word is used for the Fort Tigrá in II. 29, where the Persian omits the final vowel.

Tikrakauta. > 𐭠𐭡𐭣 > 𐭠𐭡𐭣𐭣 > 𐭠𐭡𐭣𐭣 > 𐭠𐭡𐭣𐭣 vi. 20-1. The Persian *Tigrakhudá*.

Tit. >𐰚𐰽 𐰽𐰚 II. 55. "Tongue," or "lips." The corresponding word is lost in Persian, but nose and ears being mentioned as cut off, the probable object of mutilation would be the lips. A very slight diminution of brutality appears in the case of Chitratakhma, II. 65, where *tīt* is omitted. Ostiak *tut* is "mouth."

The same root appears in the words signifying "to lie," "to deceive." The substantive is *titkim*, which is always found with the article, making *titkimmas*, I. 25; III. 67-8, 68-9; and sometimes one *m* is omitted, from inadvertence apparently, as in III. 61, 71-2.

Titrasra.¹ >𐰚𐰽 𐰽𐰚 𐰚𐰽 >𐰽𐰚𐰽, in III. 83, is probably a participial form of the same root, "the one who lies," "the liar." The usual termination *ras* is made general by the particle *ra*, or perhaps *ra* may be the indefinite article. See Grammar, pp. 66, 86, 92.

Titainra. >𐰚𐰽 𐰽𐰚𐰽 𐰽𐰽 >𐰽𐰚𐰽 III. 64, has the same Persian equivalent, *daraújana*, as the preceding; it is more like an adjective, being added to *yoš-irra*. The same Persian term is made by *tiraskàrragat* in III. 79-80, and I believe that *tiraska*, which occurs so often in the epigraphs, is really a derivation from the same root, and not a transcript of the Persian *darauga*; if this conjecture be well founded it will be past participle neuter.

Tiri. >𐰚𐰽 >𐰚𐰚𐰽. "To say," "address," "call."

Tiri, "I said," II. 39. *Tiriya*, idem, I. 16; II. 14, 23, 62; III. 41.

Tirira, "I have said," vi. 30.

Tirinti, III. 74, "thou sayest;" *tirinta*, probably, in III. 76.

Tiris, "he said," II. 6, 59-60; III. 2, 22, 37. *Tirissa*, idem, II. 10.

Tiriyas, "they called themselves," II. 69.

Tirigti, "had been named," I. 9-10, 15; II. 8.

Tirivan, "named," "called," II. 15, 23, 39, 62, 81; III. 23, 41.

Tirivaniun, "we are named," I. 5-6; A. 9.

Tirikka, passive participle, "said," "told," I. 19; in vi. 15, the same word is written *tarrika*, and possibly we have the same word in l. 48 under the form of *tarrakka*.

¹ A close examination of the paper cast in a bright light has satisfied me that the space after the first character, which I supposed unlettered, is occupied by the letter *t*; the word is, therefore, certainly *titrasra*, and the lithograph and transcript must be corrected accordingly.

Tiraska. >|< |< >|. "Lying," "deceiving." See "Tit," *ante*.

Tiraskarragat. >|< |< >|< >|< >|< >|< III. 79-80.

"I was a deceiver." This is certainly a verb, in the subjunctive form, governed by *thap*: "as I was not a deceiver." See "yupogat," "šinnigat," "porugat." The addition to the root, whether *skarra*, or only part of the sound, may be compared with those which produce such a rich store of derivative verbs in the Ugrian tongues, as the Wotiak *sk*, the Zyrian *shk*, the Mordwin *shn*, the Cheremiss and Tartar *tar*, &c., &c.

Tugahutta. >|< >|< >|< >|< I. 69. "We crossed." See "Antugahutta."

Turi. >|< >|< I. 6, 6, 33. "From," "since;" equivalent to the Wotiak *tyrys*, in *pokci-tyrys*, "from childhood," Matt. ix. 21; *lesten-tyrys*, "since the creation," Matt. xiii. 35.

Takmasbata. >|< >|< >|< II. 61, 63. The name in the Persian is *Khamaspáda*, but it may be suspected that an initial *t* is lost. In Babylonian both words are gone.

Takti. >|< >|< III. 75. May signify "life." See "Takarašti."

Tar. >|< I. 61; III. 38, 50, 52, 58, 59, 93. "Son." This word differs from *sakri*, in coming always before its noun, which is put in the genitive case, without the distinctive wedge, though a proper name; while *sakri* comes after, with its noun undeclined, but distinguished by the wedge. Thus we have, *Bartiya Kuras-sakri*, I. 28, and *Bartiya tar-kuras-na*, in III. 52, both signifying "Bardes, the son of Cyrus." The difference between the phrases appears to be, that the former is an explanation, the other merely an epithet, like *Atrides* or *Tydidēs* in Greek. Thus we find that the first or second time Bardes is mentioned, he is called *Kuras-sakri*, and afterwards, always *tar kuras-na*. We have a similar distinction in the Cheremiss *David erga* and *Erga Davidan*, "son of David." *Tar* may be allied to the Mordwin *tsür*.

Tartainti. >|< >|< >|< >|< vi. 48. See "Tarti."

Tarvasir, vi. 35, 36-7. I do not know how much of this is to be taken together; the preceding syllable is *yu*, and the whole may be one word, meaning "then." See Yutarvas. What I have read *tarvasni* in xvi. 23 may be the same word.

Tarna. $\mathfrak{E}|\mathfrak{D} \mathfrak{D}|\mathfrak{D}$. "To know."

Tassunos inni tarnas, "the people knew not," I. 24.

Akkapa . . . ir tarnasti, "who had known him," I. 38.

Tarnampi, I. 39, may be causative, "make known," but the form does not occur elsewhere. If we may suppose *pi* to be the relative particle, the remaining form, *tarnam*, "make known," from *tarna*, will have some resemblance to a form found in Zyrian and Wotiak, where *tođ* and *tōđ*, "to know," make *tōđm* and *tođm*, signifying either "to enquire" or "to make known." Or *tarnam* may be the first person singular, and the original Ugrian *m* may be restored before *pi*.

Turnainti, vi. 34-5, 35, 37, "know thou," or "thou knowest."

Tarrahuva. $\mathfrak{E}|\mathfrak{D} \mathfrak{D}|\mathfrak{D} \mathfrak{D}|\mathfrak{D} \mathfrak{D}|\mathfrak{D} \mathfrak{D}|\mathfrak{D}$ III. 1. "Tárvá," a town of Yutiya.

Tarrika. $\mathfrak{E}|\mathfrak{D} \mathfrak{D}|\mathfrak{D} \mathfrak{D}|\mathfrak{D} \mathfrak{D}|\mathfrak{D}$ vi. 15. "Said," "told." Certainly a various spelling of the participle *tirikka*, from *tiri*, q.v. The expression is the same as in I. 19.

Tarrakka. $\mathfrak{E}|\mathfrak{D} \mathfrak{D}|\mathfrak{D} \mathfrak{D}|\mathfrak{D} \mathfrak{D}|\mathfrak{D}$ v. 48, may be a variant orthography of the preceding, or else is one word with the syllable *var* in the preceding line. See "Vartarrakka."

Tàs. $\mathfrak{D}|\mathfrak{D} \mathfrak{D}|\mathfrak{D}$ I. 33. "It was." See Grammar, p. 81. In I. 15, *tàs* appears superfluous.

Tàssunos. $\mathfrak{D}|\mathfrak{D} \mathfrak{D}|\mathfrak{D} \mathfrak{D}|\mathfrak{D} \mathfrak{D}|\mathfrak{D}$. "State," "people," "army," *passim*. The word seems to be always constructed as a plural, and is preceded by the mark of distinction; the only exception is at III. 9, where the wedge is inadvertently omitted.

Atparvasrum. $\mathfrak{D}|\mathfrak{D} \mathfrak{D}|\mathfrak{D} \mathfrak{D}|\mathfrak{D} \mathfrak{D}|\mathfrak{D} \mathfrak{D}|\mathfrak{D}$ vi. 36. I have translated this "power," but as a mere guess; the Persian is gone.

Atka. $\mathfrak{D}|\mathfrak{D} \mathfrak{D}|\mathfrak{D}$ vi. 34. "Place." In Ostiak *taga*; the Persian is *gáthum*, but the passage is very defective. In vi. 29-30, *atkaṭava* represents the Persian *gáthwá*, and must signify "in their place." Singularly enough we find *kaṭava*, without the initial *t*, but with the horizontal wedge, $\mathfrak{D}|\mathfrak{D} \mathfrak{D}|\mathfrak{D} \mathfrak{D}|\mathfrak{D} \mathfrak{D}|\mathfrak{D}$, in I. 52, with precisely the same meaning. If *kaṭava* be merely a transcript of the Persian *gáthwá*, it is a curious coincidence that the postposition *va* should so nearly resemble in sound the Per-

sian locative termination. In iii. 7, 22, we find 𐎠𐎡𐎹 𐎠𐎡𐎹 𐎠𐎡𐎹 *atkat*, where the sense is very probably the same, but there is no Persian text. The root may thus be *atka*, *atkat*, or *kaṭa*.

Atrur. 𐎠𐎡𐎹 𐎠𐎡𐎹 𐎠𐎡𐎹 II. 56-7, 66-7. "A cross." The sentence is *atrurvarpatu*, which I divide *atrur-va ir patu*; "on a cross him I put."

Aṭṣavana. 𐎠𐎡𐎹 𐎠𐎡𐎹 𐎠𐎡𐎹 𐎠𐎡𐎹 xvi. 22. Very uncertain if a whole word; and meaning unknown.

Atchitu. 𐎠𐎡𐎹 𐎠𐎡𐎹 𐎠𐎡𐎹 II. 41. Name of a district of Assyria, lost both in Persian and Babylonian. It is called a district or province (*dahyaush*) in the Persian text, but has no qualification in the Scythic version.

Atheṣna. 𐎠𐎡𐎹 𐎠𐎡𐎹 𐎠𐎡𐎹 𐎠𐎡𐎹 I. 67. The word does not occur elsewhere, and both Persian and Scythic are mutilated; the Persian *náviyá*, "ships," is probably the equivalent term.

Ṭanīm. 𐎠𐎡𐎹 𐎠𐎡𐎹 𐎠𐎡𐎹 vi. 6, 46-7. "The law." Persian *framáná*. In line 6, the word occurs in a combination *ṭanīm-tattira*, "a law giver," which in other inscriptions is generally transcribed from the Persian *framátáram*: the last member of this compound word *tattira* is probably Persian: the first, if not also Persian, like *taṣām*, may be allied to the Magyar *tana*.

Ṭalni. 𐎠𐎡𐎹 𐎠𐎡𐎹 𐎠𐎡𐎹 I. 78; II. 54; III. 31. "A horseman. Always found in the plural *ṭalnifa*. The root is no doubt *ṭal*, connected with the Ostiak *ṭau* and Magyar *lo*, "horse."

Ṭachis. 𐎠𐎡𐎹 𐎠𐎡𐎹 𐎠𐎡𐎹 III. 19. The meaning is uncertain, and it is probable that we have not got the whole word; it is preceded by 𐎠𐎡𐎹 faintly impressed. See p. 120.

Ṭipi. 𐎠𐎡𐎹 𐎠𐎡𐎹 III. 66-7, 67, 70, 84, 85, 88; L. 2, 8. "A tablet;" it is the Persian *dipi*, found also at Kapurdigiri, from the Sanscrit *lipi* लिपि; this is represented etymologically with greater accuracy by using the form of *ṭ* which I suppose to be lingual or cerebral, and which is certainly allied to *l*. In xvi. 22, it is written 𐎠𐎡𐎹 𐎠𐎡𐎹 and in l. 24 𐎠𐎡𐎹 𐎠𐎡𐎹 , but both are suspicious; in fact, Inscription xvi. is incorrectly copied generally.

Ṭuban, . . . 𐎶𐎵 𐎶𐎵 𐎶𐎵 𐎶𐎵 III. 37. "Dubaña," name of a town in Babylonia; the close of the name is gone, and even the third letter is doubtful, which is unfortunate, because it would have been decisive as to the sound of 𐎶𐎵 in Persian. The Babylonian is quite gone.

Ṭukkarra. 𐎶𐎵 𐎶𐎵 𐎶𐎵 𐎶𐎵 III. 90. "Thukhra," the father of Otanes. In Babylonian 𐎶𐎵 𐎶𐎵 𐎶𐎵 𐎶𐎵, *Sukhra*.

Ṭuva. 𐎶𐎵 𐎶𐎵 I. 22. "I was," "I became."

Ṭunis. 𐎶𐎵 𐎶𐎵 𐎶𐎵 I. 9, 20, 45. "He gave." The phrase is the same in all three cases, *Kovas Hu ṭunis*, "he gave me the kingdom."

Ṭuvan. 𐎶𐎵 𐎶𐎵 I. 37. We have *evitusatuvane* here, but I know not how to divide the words; *evitus* would be "he deprived." See *evitu*, p. 169.

Ṭarti. 𐎶𐎵 𐎶𐎵. "To conceal."

Anka inni ṭartinti, "if thou do not conceal," III. 74.

Anka ṭartinta, "if thou conceal," III. 75-6.

I have called 𐎶𐎵 𐎶𐎵 𐎶𐎵 *ṭartinti* in another part of III. 74, but the character 𐎶𐎵 is not found elsewhere. I do not know if *antartainti* (not *tar*) of vi. 48, can be a form of this word; the meaning would be consistent.

Ṭartuka. 𐎶𐎵 𐎶𐎵 𐎶𐎵 I. 18; III. 64, 64-5, 81. "In retribution." This must be the signification of the word; it is used both with verbs of punishing and rewarding, and it is found under the form *ṭartuak* 𐎶𐎵 𐎶𐎵 𐎶𐎵 in iii. 17, where it can hardly have any other meaning than "restoring" or "returning." It appears to be a participle, but I do not remember any verb that could be properly used. I would say "retributing," if it were English.

Ṭarva. 𐎶𐎵 𐎶𐎵 III. 65; iii. 16; vi. 41. "Whole," "entire." In the first example we have distinctly *ṭarva astu*, representing the Persian *durusá ahatiya*, IV. 39; *astu* must be *ahatiya* (see *ṭuva*), unless we divide *ṭarvas ṭu*, which is not impossible. In vi. 41, *yutta ṭarva* is in Persian *kartam akunavam*, "I did the work." We have no Persian text for the other example, but the

sense given is perfectly consistent. I do not know if the defective word in I. 14, which I have doubtfully read *vanirfarno*, meaning "altogether," may contain the root of this word.

Attata. 𐎠𐎹𐎶 𐎠𐎹𐎶 𐎠𐎹𐎶 I. 3. "My father."

Attari. 𐎠𐎹𐎶 𐎠𐎹𐎶 𐎠𐎹𐎶 I. 3, 4, &c. "His father," or "the father." See "Aṭa."

Thapia. 𐎠𐎹𐎶 𐎠𐎹𐎶 𐎠𐎹𐎶 L. 10. A verb, in the third person; may be *pathapis*, meaning unknown.

Thap. 𐎠𐎹𐎶 𐎠𐎹𐎶 I. 55; II. 16, 24, 49, 74; III. 8, 63, 68. "When," "as." Generally followed by a verb terminated with *gat*. When followed by *appo*, as in III. 79, means "because." See also Grammar, p. 75. There is an Oighur and Jagatai particle طاب, which may be allied to this.

Thak. 𐎠𐎹𐎶 𐎠𐎹𐎶 II. 16, 24, 40, 54, 63, 70, 75, 82; III. 8, 31. "He marched." A neuter verb. I do not know if *sathak*, in I. 77, is connected with this.

Thattakus. 𐎠𐎹𐎶 𐎠𐎹𐎶 𐎠𐎹𐎶 𐎠𐎹𐎶 I. 14; Thattakus, 𐎠𐎹𐎶 𐎠𐎹𐎶 𐎠𐎹𐎶 𐎠𐎹𐎶 II. 3. "Thatagush," "Satagydia." The variant spelling proves the power of 𐎠𐎹𐎶.

Tharista. 𐎠𐎹𐎶 𐎠𐎹𐎶 𐎠𐎹𐎶 I. 48. "He had desecrated" or "abolished."

Thahikarrichis. 𐎠𐎹𐎶 𐎠𐎹𐎶 𐎠𐎹𐎶 𐎠𐎹𐎶 II. 35. "Thaigarchish," name of a month, corresponding to the Babylonian month which represents June. See "Anamakkas," *supra*.


Thubaka. 𐎠𐎹𐎶 𐎠𐎹𐎶 𐎠𐎹𐎶 I. 40. Apparently a postposition, meaning "around."

Thurvar. 𐎠𐎹𐎶 𐎠𐎹𐎶 𐎠𐎹𐎶 II. 27, 31. "Thuravahara," name of a month, corresponding with May.

Hiapvaṣva. 𐎠𐎹𐎶 𐎠𐎹𐎶 𐎠𐎹𐎶 I. 67-8. It is very uncertain if this is one word or more, and how it should be divided, if more than one. The reading is defective in the three languages; the last syllable I have not much doubt is the locative particle, and the meaning may be "in difficulty."

Hika. 𐎠𐎹𐎶 𐎠𐎹𐎶 I. 23. Passage mutilated, and reading uncertain.

- Hiak. $\nabla \nabla$ $\triangleright \Xi$. "And," "further." This word is used alone or with *kutta*, and in almost all the inscriptions it is found at the commencement of every clause, except the first. The Mordwin equivalent is *yak*.
- Hini. $\nabla \nabla$ $\langle \triangleright$. "Not." A word of forbidding, used with imperatives only. See III. 67, 70, 76, 83, 88. The Zyrian equivalent is *yen* or *en*.
- His. $\nabla \nabla$ Ξ I. 66, 77. "River." The Magyar is *viz*, Finnish, *vesi*; but the connection is very doubtful.
- Hu. $\Xi \nabla \nabla \nabla$ II. 67; III. 37; vi. 13. "I." Always preceded by the perpendicular wedge, except in II. 11, where we have the horizontal wedge, making "with me." In xviii. 5, replaced by $\triangleright \nabla \nabla \langle$ *yu*, the pronunciation in all probability being nearer than we have represented it.
- Hu*, "my," II. 22, 38, &c.; xvi. 18; xvii. 19; "to me," I. 9.
- Hun*, "me," II. 36; xvii. 20.
- Hunina*, "of me," I. 7; II. 15, 18.
- Huikki*, "to me," II. 55, 65.
- Huikkimar*, "from me," II. 7, 11, 68; "by me," I. 19; vi. 15.
- Hukik*, "after me," III. 7.
- Hu-tas*, "to me he was," or "he gave me, II, 13, 17, 20, 36; III. 25, 42, 78.
- Hunain*, vi. 28, seems to signify "me," like *Hun*.
- Hutuan*, in A. Detached, I do not understand. See p. 95.
- Hut. $\Xi \nabla \nabla \nabla$ $\Xi \nabla$ I. 6. "We are." The verbal termination alone, used for the verb substantive, as in *tas*; or else it may be one with the preceding word making *Sachohut*.
- Huttàsta. $\Xi \nabla \nabla \nabla$ $\Xi \nabla$ $\nabla \nabla \nabla$ $\Xi \triangleright \nabla \nabla$ xvi. 7. "He hath made." Instead of *yuttàsta*.
- Hufara . . . $\Xi \nabla \nabla \nabla$ $\nabla \Xi \nabla \nabla \nabla$ $\triangleright \Xi \nabla \nabla$ $\Xi \Xi \Xi$ I. 72. "The Euphrates." May be *Hufarata* or *Hufaratu*.
- Huiyama. $\Xi \nabla \nabla \nabla$ $\Xi \Xi$ $\Xi \nabla \nabla$ $\nabla \Xi$ II. 33. Name of a fortress in Armenia. The Persian has left only $\langle \nabla$ $\Xi \Xi \Xi$ $\nabla \nabla$ $\triangleright \nabla \nabla$; the Babylonian is quite gone.
- Va. $\nabla \Xi$. II. 66; III. 67, 70; xv. 13. Postposition, signifying "in." See Grammar, p. 65.

Vittavanna.  vi. 22. "Upon," or
"beyond:" the third character is faint

Viṭarna. <E> 𐎧𐎠𐎶 II. 13, 15; III. 91. "Vidarna," a Persian general.

Vivana. <E> 𐎧𐎠𐎶𐎠𐎶 III. 21, 22, 24, 27. "Vivána," a Persian general.

Vin. <E> 𐎧𐎠𐎶. The last syllable of *šauvin*, signifying "by the grace" or "power." The phrase may have been borrowed from the Babylonian 𐎶𐎠𐎶 <E>𐎠𐎶, which Colonel Rawlinson reads as *is-vi*, but *vin* means "force" in Zyrian and Permian, and *vi* is found in other Ugrian dialects; this however would require the unusual employment of a preposition.

Vintaparna. <E> 𐎧𐎠𐎶𐎠𐎶 𐎧𐎠𐎶𐎠𐎶 𐎧𐎠𐎶 III. 41-2, 42-3, 89-90. The same name is given in the Scythic version to the Median general Vidafrá, and the Persian Vidafraná, the fellow conspirator with Darius: the names are clearly distinct in the Persian text. The Babylonian is lost in both cases.

Virvaniya. <E> 𐎧𐎠𐎶𐎠𐎶 𐎧𐎠𐎶𐎠𐎶 II. 68. "Hyrkania." Lost in the Babylonian; but the Persian *Varkána* was recovered in Colonel Rawlinson's last visit to the rock.

Vial. <E> <E>𐎠𐎶 I. 18.

Viallu. <E> <E>𐎠𐎶 𐎧𐎠𐎶 III. 65, 75, 87.

Both mean "very." If this was pronounced *val*, it may shew the etymology of *Val-arsaces*, "the very great lord." See "Irsa."

Visbaṣātis. <E> 𐎧𐎠𐎶𐎠𐎶 𐎧𐎠𐎶𐎠𐎶 <E> 𐎧𐎠𐎶𐎠𐎶 II. 70. Name of a town in Parthia, of which the Persian text retains only the fragment *Vispauz*...

Visparra. <E> 𐎧𐎠𐎶𐎠𐎶 𐎧𐎠𐎶𐎠𐎶 III. 90. "Vayaspára," the father of Vidafraná.

Vistaṭta. <E> 𐎧𐎠𐎶𐎠𐎶 𐎧𐎠𐎶𐎠𐎶 𐎧𐎠𐎶𐎠𐎶 III. 1, 20, 30, &c. "Vayazdáta." In the detached inscription we find 𐎧𐎠𐎶𐎠𐎶 instead of 𐎧𐎠𐎶𐎠𐎶.

Vistaśba. <E> 𐎧𐎠𐎶𐎠𐎶 𐎧𐎠𐎶𐎠𐎶 𐎧𐎠𐎶 I. 1-2, 3; II. 69, 70. "Vishtaspa" (*Hystaspes*).

Missā. <E> 𐎧𐎠𐎶𐎠𐎶 𐎧𐎠𐎶 xviii. 4. The god "Mithra," whose worship, with that of Anaitis, was introduced into the Persian empire by Artaxerxes Mnemon.

The transcript of the Persian *visdahyoush*.

Name of the month Viyakhna; the first month, corresponding with our April. See "Anamakkas."

Persian *Mudraya*. Takes *fa* in plural.

Permian, *mulans*; Cheremiss, *mulända*.

See "Atsa." p. 165.

<< E|<| >E| ><E mandatta, in l. 9.

the word may have been pronounced *vartar*. See "Varrita."

win (see Gabelentz, pp. 389, 415); *bör*, Zyrian, &c.

"Varri."

chesvan, it will be nearly our October.

Markus-irra, "a Margian," II. 79; III. 56.

Martiya. $\geq\mathbb{Y}$ - $\succ\mathbb{F}$ $\Xi\mathbb{Y}$ II. 4, 7-8; III. 52; F. "Martiya,"
Name of a Persian insurgent.

Vartarrakka. $\geq\mathbb{Y}$ - $\Xi\mathbb{Y}$ $\mathbb{Y}\geq\mathbb{Y}$ $\succ\mathbb{Y}$ vi. 47-8. "Right,"
"true." Persian *rāstām*. Looks like a participle; and, if we
separate *var*, may be merely an orthographical variety of *tirikka*.
See "Tiri" and "Tarikka."

Marṭuniya. $\geq\mathbb{Y}$ - $\geq\mathbb{Y}$ \leftarrow $\Xi\mathbb{Y}$ III. 91. "Marduniya," the
father of Gobryas.

Varteš. $\geq\mathbb{Y}$ - $\Xi\mathbb{Y}\mathbb{Y}$ $\mathbb{Y}\Xi$ II. 58. Meaning unknown.

Marri. $\geq\mathbb{Y}$ - $\succ\mathbb{Y}\mathbb{Y}\leftarrow$. "To seize," "hold," "possess." Magyar
markasz, "he seizes;" *marriszgat*, "he holds."

Marriya, "I held," I. 21, 79.

Marrira, "I have possessed," vi. 13.

Marris, "they seized," "held," I. 7, 67; II. 65; III. 17; vi. 16-7;
marrissa, II. 8.

Marrista, "he has possessed," vi. 33.

Marrik, "he was taken," II. 56, 66; III. 44.

Marrika, idem, I. 64; II. 55.

Varrita. $\geq\mathbb{Y}$ - $\succ\mathbb{Y}\mathbb{Y}\leftarrow$ $\Xi\mathbb{Y}$. "All." I believe the root to be
var, allied to the Ostiak *per* of the same meaning; *perda* has
precisely the same value. The Persian equivalents are *haruwa*
and *visma*. We have *Tassunos varrita*, "all the people," in
I. 29, 61; *yupa varrita*, "all that," vi. 39-40; xv. 15. A plural
is formed irregularly by *pafa*, making *varripafata* in II. 66, and
varpafata in II. 56; iii. 13-4, 21. *Varpita*, in xviii. 5, may have
the same value.

Varš. $\geq\mathbb{Y}$ - $\mathbb{Y}\Xi$ vi. 47. "A path," "way."

Vas. \mathbb{Y} -. Definite article, case-ending, &c. See Grammar, p. 65.

Vasñ. \mathbb{Y} - $\mathbb{Y}\mathbb{Y}$. "Then," *passim*.

Vasri. \mathbb{Y} - $\succ\mathbb{Y}\mathbb{Y}\leftarrow$ III. 32. "Following," "after." This value is
rendered probable by the context, and is corroborated by finding
the same root in several words which imply subsequence. The
termination is like that of *nanri* and *senri*. It must however be
confessed that the restoration is very uncertain; I made the first
syllable *sen* in the lithograph, but I think the faint mark left
is more like *vas*.

Vasam-vasraka. $\text{V} \text{V} \text{V} \text{V} \text{V}$ vi. 13-4. "After,"
"in addition to." Persian *apataram*.

Vassaka . . . $\text{V} \text{V} \text{V} \text{V} \text{V}$ xviii. 3-4. "Afterwards." The
Persian is certainly *abiyapara*, which must signify "more subse-
quently," "at a still more subsequent period."

Vasissin. $\text{V} \text{V} \text{V} \text{V} \text{V}$ III. 64, 66, 70-1, 84. "Here-
after." Persian *aparam*.

Vachta. $\text{V} \text{V} \text{V} \text{V} \text{V}$. "To forsake."

Vachtainti, vi. 48, "forsake," imperative.

Vachtavässa, II. 69-70, "he forsook."

In *vachtainti*, I correct the $\text{V} \text{V} \text{V} \text{V} \text{V}$, which Westergaard gives as
indistinct, to $\text{V} \text{V} \text{V} \text{V} \text{V}$. In the second example *va* seems to be
redundant.

Vachchi. $\text{V} \text{V} \text{V} \text{V} \text{V}$. "To cut off." Magyar *vag*, which is
probably the root both of this verb and the preceding.

Vachchi, II. 65; *vachchiya*, II. 55, "I cut off."

Amneni. $\text{V} \text{V} \text{V} \text{V} \text{V}$ I. 33. "former," "ancient."

Replaces *sassa* of I. 6, which represents the same Persian equiva-
lent. In a defective line I. 23, we seem to have $\text{V} \text{V} \text{V} \text{V} \text{V}$
where the Persian has *pruvama*, "before me." In III. 73 we
have $\text{V} \text{V} \text{V} \text{V} \text{V}$ alone. There is some uncertainty about the value
of the word, for the Persian is lost and the Babylonian not quite
clear, though it looks more like "after" than "before." In the
Independent L. 8-9, we have *amneni*, as in I. 33; but joined
with *Tipi*, and alluding to a preceding tablet. There cannot be
much doubt of the sense, though the sound is still doubtful.

Immannis. $\text{V} \text{V} \text{V} \text{V} \text{V}$ F. and III. 53. "Imanes," name
assumed by Martius. The second character looks like $\text{V} \text{V} \text{V}$ in
the column, but is very faint.

Immas. $\text{V} \text{V} \text{V} \text{V} \text{V}$ I. 7; II. 28, 32, 44; III. 36. Makes an ordi-
nal number. See Grammar, p. 78.

Nainta. $\text{V} \text{V} \text{V} \text{V} \text{V}$ vi. 33. A verb in the 2nd person;
but I cannot give a value to it.

Napunīta. $\rightarrow\mathbb{Y}$ \Rightarrow \mathbb{Y} $\mathbb{E}\rightarrow\mathbb{Y}$ III. 52. "Nabonidus."
Usually written with $\Rightarrow\mathbb{Y}$.

Nanri. $\rightarrow\mathbb{Y}$ $\rightarrow\mathbb{Y}$ $\rightarrow\mathbb{Y}\mathbb{Y}\mathbb{Y}$. "He said," *passim*. *Nanga*, "I said."
II. 81. I cannot discover the grammatical state of these words.

Ni. \leftarrow III. 63, 66, 73, 75, 84, 94. "Thou." *Nin*, "thee,"
III. 76, 88. See Grammar, p. 68.

Nifabak. \leftarrow $\mathbb{Y}\mathbb{Y}\mathbb{Y}$ \mathbb{Y} $\rightarrow\mathbb{E}$ III. 72. I have no clue to the
value of this word; the Persian is mutilated, and the Babylonian
quite gone.

Nikavi. \leftarrow $\rightarrow\mathbb{Y}$ $\leftarrow\mathbb{E}$ I. 6, 33, 37, 52. "Our."

Niku. \leftarrow $\mathbb{Y}\mathbb{E}$ I. 5, 8. "We."

Nitavi. \leftarrow $\mathbb{E}\rightarrow\mathbb{Y}$ $\leftarrow\mathbb{E}$ I. 43; II. 57; III. 17, 18, 33, 44, 46.
"His."

Nititpaal. \leftarrow $\rightarrow\mathbb{E}$ \mathbb{Y} $\rightarrow\mathbb{Y}$ $\leftarrow\mathbb{Y}$ I. 59, 65, &c.; III. 51.
"Naditabira." The Babylonian name of Nidit-baal is rendered
much more correctly in Scythic than in Persian.

Nivans. \leftarrow $\rightarrow\mathbb{E}$ I. 5, 6, 7, 33, 37; II. 10, 60; III. 55, 76,
80, 85, 87. "A family," "race." Obviously allied to the
Magyar *nem*, "a generation;" *nemi*, "descended;" *nemzet*,
"nation," &c. See "Nivan."

Nisgas. \leftarrow $\rightarrow\mathbb{Y}$ $\rightarrow\mathbb{Y}\rightarrow\mathbb{Y}$ $\rightarrow\mathbb{Y}$ III. 64; xv. 18, 20; xvii. 11,
14; xviii. 5. "Protect." In all the cases, except the first, this
word is followed by $\rightarrow\mathbb{Y}$ *nī*; and in the first $\mathbb{E}\rightarrow$ *in* goes before,
a character perhaps belonging to the preceding word, which I do
not understand: if so the word will be either *innisgas* or *nisgasnī*,
taking the nasal either first or last. I do not know how to
explain this, for the termination *as* would be the usual impera-
tive: in the last-cited case the first letter is $\rightarrow\mathbb{Y}$ instead of \leftarrow ,
a proof of resemblance in sound.

Nissaya. \leftarrow $\rightarrow\mathbb{Y}$ \mathbb{Y} $\mathbb{E}\rightarrow\mathbb{Y}$ I. 43. "Nisaya," a district of
Media.

Niyakka. \leftarrow $\mathbb{E}\rightarrow\mathbb{Y}$ $\rightarrow\mathbb{E}$ $\mathbb{E}\mathbb{Y}$ xviii. 4. Notwithstanding the
irregular orthography, there cannot be much doubt that we have
here a transcript of the Persian *niyāka*, the Zend *nyakō*. The
first letter has a wedge too many; the last is quite a new form,

and may possibly have the sound of *kam*; the wedge, too, is hardly upright, and may stand for <, as the inclined wedge does throughout this inscription: the following stroke, in a letter which can hardly be anything but <E>, is made most decidedly perpendicular.

Ni. 𐎠 II. 82; III. 76, 86, 88, 89. "Thee," "thy;" an enclitic pronoun. See Grammar, p. 69.

Nypifa. 𐎠 𐎶 𐎶 III. 72. It is not clear whether this first letter should be 𐎠 or 𐎶; but the word appears to mean "former," "preceding;" the Persian is *pruvā*. I have sometimes been induced to connect it with *innifapata*, but it is only a guess.

Nikti. 𐎠 𐎶 𐎶 III. 83. "Thou mayest be." Probable only; *kti* may be connected with *kiti* in *kitinti*, q. v.

Nivan. 𐎠 𐎶 𐎶 II. 10-1, 60. "Descended." The word is *nivanki* in the second example, the additional syllable apparently making no difference. It appears to be a participle, and in spite of orthographical difference must be allied to *Nivanš* above.

Nabpunīta. 𐎠 𐎶 𐎶 III. 38, 59; D. I. "Nabonidus." The 𐎶 is redundant; in III. 52, a different orthography occurs. See "Napunīta."

Nabukutarrusar. 𐎠 𐎶 𐎶 𐎶 𐎶 I. 60, 65, 73; III. 37-8, 51-2, 59. "Nebuchadnezzar." In the detached inscription D. the penultimate letter is 𐎶-𐎶-𐎶-𐎶 *ra*, and in Det. I. the word is written "Nabukutarsar."

An. 𐎠. This character, which was used as a determinative for things celestial or cosmical, occurring at the commencement of the words God, heaven, temple, day, month, and sea, had sometimes certainly the sound attributed to it, though there appears reason to believe that, as in 𐎶𐎶 and 𐎶𐎶, the pronunciation was more like that of the vocalic nasal of the French, than the decided consonantal sound of our own language; in some cases it would seem to have had merely the sound of *a*. I have conjecturally so divided the words in dates as to make the character a part of the name of each month. I hardly venture to connect the Zyrian *En* with this, but the meaning is precisely the same. It occurs alone in v. 1. There is a valuable note by Holtzmann on

this character, in the fifth vol. of the Zeitschrift of the Deutsch Morg. Gesellschaft, p. 152. See "Annap."

Anuvasforvana. >Y < Y- >Y >Y >Y I. 16. "By night and day." I cannot divide the words with any certainty: *for* is defective. See "Annan."

Åuramasta. >Y < >Y- Y- >Y. "Ormazd." The evidence for the pronunciation or non-pronunciation of the initial is here pretty equally divided; we have the ancient Persian *Auramazdá*, the Zend *Ahuramazdao*, and the Sassanian *Auramazdi*, on the one hand, and the Pazend and Persian *Hurmazd* and *Urmazd*, with the various Greek forms, on the other. I do not allege the Huzwaresch *Anhuma*, as I doubt the reading, and even suspect the genuineness of the language. The Greek forms 'Ορομάσδης and 'Ορμύσδας represent the Babylonian orthography, which varied considerably in the same age, and even on the same monument. It is interesting to find in the Scythic version the epithet "God of the Arian people," added as a distinction to Ormazd, when other gods are also mentioned. See III. 77, 80. In the Artaxerxes Inscription, the name is written thus — >Y >Y- Y- >Y "Åvarmasta."

Anka. >Y >Y III. 74, 75, 85, 88; vi. 31. "If." Perhaps analogous to the Wotiak *ka*. *Appo anka*, "whatever," I. 19, is precisely in accordance with Ugrian usage: the Wotiak *ka*, "if," added to *kin*, "who," makes "whoever." See Wotiak Grammar, p. 67-8.

Angaus. >Y >Y- >Y I. 11. "The sea," or "river." Last letter is >Y in vi. 23. Doubtful if allied to the Turkish *dengiz*, and Cheremiss *tangysh*, "the sea," or with the Cheremiss *änger*, "river."

Ankik. >Y <Y >Y vi. 2; xiii. 2; xv. 2; xvi. 4; xvii. 2. "Ankikka," in v. 3-4. This is clearly the Tartar *kuk* or *kiuk*, found in Turkish, Mongolian, &c., meaning "blue" or "sky," with the addition of the celestial determinative.

AnkirinY. >Y <Y >Y III. 68. Probably signifies "may he testify to thee." The Persian *taiyiya* or *maiyya* is visible on the rock (see Rawlinson's "Notes," p. vi), and the last Scythic letter may represent "thee," though it is doubtfully read, and may be >Y.

Antartainti. 𐎠𐎵 𐎠𐎲𐎠𐎵𐎲𐎠𐎵 𐎠𐎲𐎠𐎵𐎲𐎠𐎵 𐎠𐎲𐎠𐎵 vi. 48. The sentence is *hini antartainti*, in Persian *Mâ stabava*, and the meaning will be "do not suppress," or something of like import. I am inclined to refer it to 𐎠𐎲𐎠𐎵 *tarti*, "to conceal," notwithstanding the altered spelling and change of form.

Antugahutta. 𐎠𐎵 𐎠𐎲𐎠𐎵𐎲𐎠𐎵𐎲𐎠𐎵 𐎠𐎲𐎠𐎵𐎲𐎠𐎵 I. 69. "We crossed." The first person plural of the verb *antuga*, with *ku* instead of the more usual *yu*, and the indefinite *ta*; which however seems redundant.

Anam-tanata. 𐎠𐎵 𐎠𐎲𐎠𐎵𐎲𐎠𐎵 𐎠𐎲𐎠𐎵𐎲𐎠𐎵 𐎠𐎲𐎠𐎵𐎲𐎠𐎵 (?) The goddess Tanata, Anaitis, or Neith. See the Artaxerxes Inscription, p. 160.

Anmons. 𐎠𐎵 𐎠𐎲𐎠𐎵𐎲𐎠𐎵𐎲𐎠𐎵 𐎠𐎲𐎠𐎵𐎲𐎠𐎵. "A month," *passim*. The character which I have arbitrarily called *mon* is obviously the Babylonian monogram. The first 𐎠𐎵 is clearly a part of the word, as is proved by the passage in II. 47, where it comes after a word of known termination: the second 𐎠𐎵 always following 𐎠𐎲𐎠𐎵, must I think serve as a determinative of the name of the month, which invariably continues the sentence.

Annep. 𐎠𐎵 𐎠𐎲𐎠𐎵𐎲𐎠𐎵𐎲𐎠𐎵 III. 77, 79; v. 1; vi. 1; xvi. 1, "God;" III. 79; iii. 13, "gods." This seems to be a crude form, used in either the singular or plural; with the ordinary terminations another form is used, *Annappi*, which is also either singular, as in xiii. 1, or plural, in xvi. 28. It takes the plural particle in xvii. 21, 25, *Annappipa*, and the genitive ending in xi. 3; xvi. 2, *Annappipana*. In v. 1, we find *Annep an*; I suppose the second *an* is inserted as intensive.

Appi, III. 61, represents the mutilated Persian *Di...*; and the same *Di...* in the following clause is, both in the Scythic and Babylonian versions, rendered by "Ormazd." *Appi* must therefore be "a god," without the celestial adjunct, and the 𐎠𐎲𐎠𐎵 in *Annappi* will be euphonic merely. It may be allied to the Manchu *apka*.

Annappatna. 𐎠𐎵 𐎠𐎲𐎠𐎵𐎲𐎠𐎵𐎲𐎠𐎵𐎲𐎠𐎵𐎲𐎠𐎵 II. 47. "Temples of the gods." See "Anchiyan."

Annan. 𐎠𐎵 𐎠𐎲𐎠𐎵𐎲𐎠𐎵𐎲𐎠𐎵. "A day," *passim*. Always used (with one exception, II. 47) as the day of the month. See "Anuvas."

Anchiyan annappatna. >| E M E N >| >| >| <> >|

I. 47. How much of this renders "the temples of the gods," is doubtful. A comparison with *Abatana* of the Artaxerxes Inscription, induces me to consider *annappatna* "temples of the gods," and *anchiyan* "restoration," making altogether, with the following *yutta*, "I restored the temples of the gods." Or *anchiyan* may be "re-visitation," "re-dedication," derived from the divine *an* and *chiya*, "to see;" as the Latin *visito* from *video*.

Inbaluva. E E >| E >| I. 72. Either a postposition, meaning "near," or a word connected with the Mongol *balu*, "a city,"¹ and Magyar *falu*, "a small town." In this last hypothesis, the passage would read "when I got into the city of Babylon," which would be inconsistent with the context, or "when I got to the towns of Babylon," meaning those in the neighbourhood; and Zazan being on the Euphrates, was probably one of them. But the Babylonian version, which is pretty clear here, hardly countenances this; the Persian is defective.

Inporugat. E E >| E >| II. 50. See "Pori."

Inkanī. E E >| >| III. 75, 86.

Inkannī. E E >| >| III. 83.

These words are clearly identical. They are found in the following passages: *Auramasta Ninkanisni*, III. 75, 86, both rendered "Ormazd befriend thee," and *yufri hini inkanninti*, III. 83, "him do not thou befriend." Whether the root be *inkani* or *kani*, is doubtful; I think *kani*.

Inkanna. E E >| >| II. 7. A postposition, which may signify "towards;" but I am inclined to suppose it connected with the preceding roots, and to render it "friendly."

Inta, inti. E E >| >|, E E >| >|. Sometimes looks like the pronoun "thou," but probably it is merely the personal termination of verbs of the second person, indicative or imperative. See Grammar, p. 80.

Innakkaniya. E E >| >| >| < >| III. 85, 86.
"Images," "figures." We may have the same root in—
E E >| >| >| of the Artaxerxes Inscription, l. 3;

¹ Marco Polo's *balu*, in *Kanbalu* (City of the Khan). The word now used by the Mongols is *Balgasun*, in the Dictionaries. I know not if *balu* be also in use.

but it is a mere guess. Colonel Rawlinson is of opinion that it represents the Persian اینت "this."¹

Innifapata. $\Xi\Xi\Xi$ $\langle \rightarrow$ $\mathbb{V}\mathbb{W}\mathbb{W}$ $\rightarrow \mathbb{W}$ III. 85, 86. In both these passages *thap innifapata* must signify "as long as thou livest," but I cannot analyse the word. The Persian equivalent is in the first case *yává jiváhya*, "as long as thou livest;" in the second it appears to be *utámaiya yává taumá ahatiya*, which is hardly to be reconciled with the Scythic version; and the same phrase occurs in the following paragraph, where there is certainly no Scythic equivalent.

Innī. $\Xi\Xi\Xi$ \mathbb{W} II. 15, 17, 23, 39, 62; III. 5, 41, 70, 71, 72, 74, 76, 79, 82, 83. "Not." A comparison of these passages with those cited under *hini*, will shew that the former word is prohibitive, and this the simple negative. The nasal is negative in the Ugrian languages generally.

Un. \mathbb{W} added to $\mathbb{W}\mathbb{W}$ *Hu*, forms a sort of accusative case in xiii. 11, and xv. 17. It is detached from the pronoun.

Neni. \mathbb{W} $\langle \rightarrow$. See "Am," \mathbb{W} $\rightarrow \mathbb{W}$.

Noga. \mathbb{W} $\rightarrow \mathbb{W}$ $\rightarrow \mathbb{W}$. "To bring," "carry," "send."

Nogaya, "I brought, &c." I. 46, 51, 63; II. 74, 81; L. 10.

Nogas, "they brought," II. 65.

Nogaik, "he was brought," I. 64; II. 55.

Ra. $\rightarrow \mathbb{W}\mathbb{W}$ \rightarrow . Perhaps a sort of verb-substantive(?). It comes at the close of the first paragraph, in the detached inscription A., and in the sentence *ankiri-ni Auramasta ra*, III. 69, "Ormazd be witness to thee." For the use of *ra* as an indefinite particle, see Grammar, pp. 66, 83.

Rilu. $\rightarrow \mathbb{W}\mathbb{W}$ $\langle \rightarrow \mathbb{W}$. "To write." Magyar *iro*; Tamul *clu*.

Riluva, "I wrote," xvi. 24.

Rilura, "I have written," III. 84-5.

Rilus, "he wrote," xvi. 23.

Rilwik, "written," III. 67, 70; L. 7.

¹ An examination of the Persian text, which I had not seen when the above was written, shows the correctness of Colonel Rawlinson's explanation; but the adoption of a Persian pronoun is at least singular.

Arta. 𐎠𐎹𐎶 𐎠𐎶 vi. 30. "I settled," "caused to dwell."

Artak. 𐎠𐎹𐎶 𐎠𐎶 𐎠𐎶 II. 5. "He dwelled." This is, I believe, the neuter form of the same verb.

Artavartiya. 𐎠𐎹𐎶 𐎠𐎶 𐎠𐎶 𐎠𐎶 III. 6. "Artavardiya." Nothing remains but the first syllable of the name of this Persian general. It would have been interesting to have the name in the Scythic character; the last half of the word resembles in sound so closely the name of the brother of Cambyses, and that of the Susian people, that I cannot but suspect some connection, notwithstanding the orthographical difference both in the Persian and Babylonian.

Artastana. 𐎠𐎹𐎶 𐎠𐎶 𐎠𐎶 𐎠𐎶 𐎠𐎶 x. "Ardastana." See the note on Inscription No. 10.

Artumannis. 𐎠𐎹𐎶 𐎠𐎶 𐎠𐎶 III. 92. "Ardumanih;" the name is quite lost in the Scythic Inscription.

Arminiya. 𐎠𐎹𐎶 𐎠𐎶 𐎠𐎶 I. 12; II. 22. "Armenia," "Armenian." Takes *rkir* as the indefinite article in II. 22 and III. 36; and *ra* in III. 58.

Arrauvatis. 𐎠𐎹𐎶 𐎠𐎶 𐎠𐎶 I. 14; III. 24, 25, 31, 34-5. "Harauvatish" (Arachosia,) written 𐎠𐎹𐎶 𐎠𐎶 𐎠𐎶 in vi. 19.

Arriva. 𐎠𐎹𐎶 𐎠𐎶 𐎠𐎶 vi. 17. "Hariva" (Aria). Written 𐎠𐎹𐎶 𐎠𐎶 𐎠𐎶 in I. 13.



Arriya. 𐎠𐎹𐎶 𐎠𐎶 𐎠𐎶 vi. 11. "An Arian;" in Persian *Ariya*. *Arriya-va*, in L. 3, probably means "in the Arian language."

Arriyanam. 𐎠𐎹𐎶 𐎠𐎶 𐎠𐎶 𐎠𐎶 III. 77, 79. "Of the Arians." I have no doubt this is a transcript of the Persian genitive case plural.








Arriyaramna. 𐎠𐎹𐎶 𐎠𐎶 𐎠𐎶 𐎠𐎶 I. 4. "Ariyaramna," the great-grandfather of Darius.


Arasinna. 𐎠𐎹𐎶 𐎠𐎶 𐎠𐎶 x. "Athagina." See note on Inscription No. 10.


Ir. 𐎠𐎶. "Him," &c. See Grammar, p. 70.


Irtuva.  III. 28. The beginning of this word is quite clear in the impression, but as the Persian text has *Gadutava*, there can hardly be a doubt that the engraver omitted a wedge, and that the first character should be . See "Kantuva."

Irtaksasa.  xviii. *passim*. "Artaxerxes."

In Inscription xix. the character  is inserted in the third space, making the name Artakiksassa; unless the second group, which is made rather in this way  than , though somewhat sloping, should be a different character. On the Venice vase we have also the ; but the second group is , and the last but one an irregular heap of nine small wedges, which might have been  .


Irvael.  III. 31. "The possession," or "dwelling-place." I give this meaning from its probability (see note on the passage), and because some Ugrian words, meaning "to dwell," and "to possess," have a resemblance to the word *Irvael*, which is evidently too a substantive of importance, being preceded by the distinctive wedge. The Zyrian *ol* is "to dwell," the Ostiak *val* has the same meaning; the Wotiak *ulem* is "a dwelling," *ulem-vylem*, "a possession," and *iricyl*, "gain," "advantage," &c. Some corroboration may be derived from the fact that Vibanus, of whom the place in question was the *Irvael*, held the dignity of Satrap in the country.





Irsata.  III. 30. "Arshada," the fort of Arachosia; the *Irvael* of Vibanus, spoken of in the preceding article.

Irsama.  I. 2. } "Arshama,"

Irsamma.  I. 3. } the grandfather of Darius.

The almost certain connection of this name with the word following, may strengthen the suspicion that the ancestors of Darius were of Scythic race.

Irsarra.  I. 1, as an adjective.

In xi. 2-3, and xvi. 2, we have *akka irsarra anappipana*, "who is the greatest of the gods." Used as a substantive, meaning "chief leader," in II. 8, 14. 17, 61; III. 21, 30, 33, generally with the distinctive wedge. In vi. 9, we find *irsanna*. With the addition of *ikki*, the root becomes adverbial    

irsikī, "greatly," II. 18, 27; III. 26, 70; sometimes written *irsiki*, xvi. 19, &c. This adverb becomes a noun, and takes the plural particle, *irsiki-fa*, "the many," "the people," Persian *parunām* or *paruoanām*, vi. 5, 6; xvii. 6-7, &c. The root will certainly be *ir* or *irs*, and is allied to the Magyar *erős*, "great," "mighty," and Ostiak, *ar*, "great."

The word *Artæi*, by which the people of Persis (not Persia) called themselves, may be allied to this root. The statement of Herodotus that they spoke the same language with the nomads Sagartians; some of their very peculiar Tartar customs, such as the prohibition to wash in running water; the very great difference exhibited by Xenophon, in habits, dress, character, and feeling, between them and the ancient Medes, who appear certainly to have been of the Indo-European race; together with some other facts, of which it is necessary to mention only the discovery of ancient inscriptions in a Scythic dialect in that part of the empire, all concur to induce a suspicion (for it has taken, as yet, no greater consistence) that these mountaineers, the ancestors and countrymen of Cyrus, may have been Scythians.

Retakiṭuva. 𐎠𐎵𐎶𐎠𐎶𐎠𐎶𐎠𐎶𐎠𐎶 II. 56-6, 65.

First person singular; may signify something like "I smote," or "I killed;" or it may be a noun in the locative case: there is no Persian equivalent legible in either instance.

Reva. 𐎠𐎵𐎶𐎠𐎶𐎠𐎶 III. 5.

Revavanra. 𐎠𐎵𐎶𐎠𐎶𐎠𐎶 𐎠𐎵𐎶𐎠𐎶 iii. 24.

I despair of eliciting any meaning from these words. There is no Persian text, and the roots do not appear elsewhere.

Reman. 𐎠𐎵𐎶𐎠𐎶𐎠𐎶 𐎠𐎵𐎶𐎠𐎶. "To think," "consider," "remember." This is somewhat doubtful, the Persian text or Scythic version being always one or the other defective. The Persian root however seems to have been *man*.


Remānti, III. 67-8; vi. 47, "do thou consider." This gives a consistent and probable sense in both cases.


Romānta, vi. 31-2, "[if] thou consider;" not so certain, but still not inconsistent.


Remānri, III. 71-2, "he may consider," or "let them consider:" this too is a probable reading.


Revanni. 𐎠𐎵𐎶𐎠𐎶𐎠𐎶 𐎠𐎵𐎶𐎠𐎶 II. 11; III. 3. Looks like a post-position, meaning "with;" but the Babylonian 𐎶𐎠𐎶 and the Persian *viṭha* compel me to render it "at home."


Lubaruri.  II. 14, 22, 38, 61, 80; III. 6, 22.


"A servant," or "subject," always preceded by *Hu*, "my." It takes the wedge of distinction. *Lubavas*, I. 15, must be "subjection;" *lubavas yuttās*, "they made subjection," "they submitted." The *yuttas* here is active, but *lubavas* is preceded by a visible  *tās*, the neuter verb, which I do not understand.


Lufaba.  I. 78. "Retired," "went back." I have no doubt the defective word in III. 32, is the same; the last letter is gone.

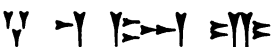
Lu . . . ya.  I. 48-9. Must signify "I restored." The word seems irrecoverable. In the Persian text, the corresponding word does not appear, but it must be admitted that there is much in the clause which has not yet been satisfactorily read.

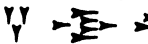
Lulvak.  I. 40. "Dared." This is probably the meaning, though the corresponding Persian word *adarshamaush* hardly comes into the right place.

Lulne.  III. 74, 75. "Record." Is represented by the same Persian term, *hadugam*, in both instances. See Rawlinson's "Notes." I would derive the word from *rilu*, "to write," the Magyar *iro*.

Luchogatta.  II. 49. "I retired." The syllable *lu* may have the force of the Latin *re*. See "Lufaba," above.

Alyes.  I. 48, 52, 53; III. 81; vi. 43; xiii. 10; xvii. 10; x. "House," "family." Both the building and the people: generally has *u* before it.

Saprakim.  II. 19, 25, &c. "Battle." The nearest Ugrian word is the Magyar *haborusag*, "war;" but I fear it is hardly like enough to be admitted.

Sakka.  I. 14; vi. 20, 23. "The Sacæ." Takes *pa* in the plural.

Saksabavana.  II. 80. "A Satrap." The Persian *kshatrapad*, with redundant *na*.

Sakri. $\text{𐎶} \text{𐎠𐎹} \text{𐎶𐎠𐎹}$ *passim*. "A son." In the Artaxerxes Inscription written $\text{𐎶} \text{𐎠𐎹} \text{𐎶𐎠𐎹}$ *Sakarri*. The Cheremiss *erga*, Turkish *oglı*.

Satavatak. $\text{𐎶} \text{𐎠𐎹} \text{𐎶𐎠𐎹} \text{𐎶𐎠𐎹} \text{𐎶𐎠𐎹}$ I. 72. A participle used as a postposition, coming after the word Euphrates, meaning "extended along," like the Latin *secus*: allied, I believe, to the following word.

Satanŷka. $\text{𐎶} \text{𐎠𐎹} \text{𐎶𐎠𐎹} \text{𐎶𐎠𐎹}$ vi. 9, 37. "Far," "wide," "extended." I have not much doubt of the meaning of this word; if the value here given be correct, it fixes the signification of the word *apiya*, so frequently occurring in the smaller inscriptions.

Satŷarrita. $\text{𐎶} \text{𐎠𐎹} \text{𐎶𐎠𐎹} \text{𐎶𐎠𐎹}$ II. 10.

Satŷarritta. $\text{𐎶} \text{𐎠𐎹} \text{𐎶𐎠𐎹} \text{𐎶𐎠𐎹}$ Detached E.
"Khshathrita" (Xathrites).

Satuvane. $\text{𐎶} \text{𐎠𐎹} \text{𐎶𐎠𐎹}$ I. 35. See "Eviŷu."

Sathak. $\text{𐎶} \text{𐎠𐎹} \text{𐎶𐎠𐎹}$ I. 77. Seems to mean "were drowned," or "carried away" by the stream.

Sarak-mar. $\text{𐎶} \text{𐎠𐎹} \text{𐎶𐎠𐎹} \text{𐎶𐎠𐎹}$ I. 7-8. "From a long time." The termination *mar*, and the apparent connection of *sarak*, *satawatak*, and even *sassa* and *sacho*, render this reading more probable than Oppert's ingenious version, "in two lines."

Sara. $\text{𐎶} \text{𐎠𐎹}$ II. 58. I have no other suggestion to make than that this word may be put for the following *sarak*, the final *k* being elided.

Sarak. $\text{𐎶} \text{𐎠𐎹}$. "A time" (*fois*, French), followed by an ordinal number with the article and postposition: *Sarak II-im-vas-va*, "at the second time," II. 28, 44; III. 13, 36; *sarak III-im-vas-va*, "at the third time," II. 32. The same word will obviously take the sense of "again," or "moreover," or "at any time:" as *anka sarak*, "if again," "if moreover," III. 75; vi. 31; *appo sarak*, "what at any time," xv. 14. After *kutta*, in iii. 22, the value must be similar. The Wotŷak *sarak*, "forthwith," may be connected with *sarak*.

Sassa. $\text{𐎶} \text{𐎠𐎹}$ I. 6, 38; L. 4. "Former," "past." The same word, applied to the "deceased" Barden, and to "former"

time, can hardly have any other signification than that given. The *ta* added to *sassa*, in I. 6, makes it indefinite.

Sacho. Y Y M E I. 6. I think this is the root of a verb, occurring in the first person plural, *sachohut*, "we are descended," or "we originated."

Sira. $\Rightarrow \text{> E Y}$ -. "To place," "fix." This is given doubtfully, for in no case are the inscriptions clear, or versions positive. I read *sira*, III. 45, "I fixed [on crosses];" xvi. 23, "I placed [this tablet];" xviii. 4, "I placed [the statues];" *siras*, xvi. 21, "he placed [this *stana*(?)]."

Siyunika. $\Rightarrow \text{> Y K < > E Y}$ vi. 42, 47. Signification is certainly "injury," but the reading somewhat doubtful.

Suktas. $\text{E Y} \Rightarrow \text{Y E Y}$ I. 13 } "Sogdia." Takes *pa* in plural.

Sukta. $\text{E Y} \Rightarrow \text{E Y}$ vi. 18 }

I alter E E of Westergaard's engraving to $\Rightarrow \Rightarrow$; the character E E being unknown, he thought it might have been intended for Y E *ku*.

As. Y E I. 48. Appears to represent the Persian *gaitham*, "a chaunt."(?)

Aski. Y E M E I. 39; II. 20, 36. "Moving." Of three places where the stay of armies is recorded,¹ all having the word *chitá* in Persian added to the statement, two in the Scythic version give *aski inni yuttas* as the corresponding expression. As the Scythic omits this in the third case, it could not have been essential; and I suppose therefore the meaning might have been "stationed," "the army remained still;" and I translate therefore, "it made no movement." In the other case, where *aski* occurs in a different combination, the sentence is doubtful in both languages, and other words in the same clause are unknown in Scythic: but "moving" is at least not inconsistent with the context.

Astu. $\text{Y E} \Rightarrow \text{Y}$ III. 65. "It shall be."(?) See "Tarva."

¹ Colonel Rawlinson, in his Vocabulary, withdraws the *chitá* of I. 28, which he had restored in his Analysis, though not on the engraved plate, on the plea of want of room; but there is a defective space in the preceding line, between *pasas* and *hysa*, where the word might have stood; and a comparison with the Scythic II. 20 will show that it almost certainly was there.

Assagartiya. 𐎠𐎹 𐎶 𐎶𐎠𐎶 𐎶𐎠𐎶 𐎶𐎠𐎶 II. 59; III. 56. "Sagartian." Takes *fa*.

Assura. 𐎠𐎶 𐎶𐎶 𐎶𐎶𐎶- I. 10-1; II. 2; vi. 21. "Assyria." Takes *fa*. Written *Assuran*, in II. 41.

Isparta. 𐎶𐎶𐎶 𐎶𐎶 𐎶𐎶𐎶 vi. 22. "Sparda." Lost in I. 11.

Iskutra. 𐎶𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶 𐎶𐎶𐎶- vi. 24. "Skudra." The orthography is doubtful.

Iskuinkakka. 𐎶𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶 Detached K. "Sakuka," the Scythian.

Istana. 𐎶𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶 xvi. 21. A monument of some sort; transcript of the Persian word.

Isnisuī. 𐎶𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶𐎶 vi. 45. "Grant," "accord." Persian *dadātuwa*. The word is preceded by the horizontal wedge, and can therefore hardly be a verb; but I do not know what else to make of it.

Irasra. 𐎶𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶𐎶- III. 80-1. The word denotes a person having some evil quality, which Darius boasts he has not. The Persian original is lost.

Issainsakris. 𐎶𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶𐎶 II. 4-5. "Chichakhraish," the father of the insurgent Martius.

Šauvin. 𐎶𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶𐎶 *passim*. "By favour of." See "Vin."


































Šatis. 𐎶𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶𐎶 II. 20, 36, 48. "He awaited." If this verb may be allowed to signify "stay away," the next word may be a causative form of it.

Šatuinta. 𐎶𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶𐎶 vi. 38. "Keep thou away," "avert." The Persian word corresponding with this, containing the root *aj*, is very likely to have had such a value.

Šatšana. 𐎶𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶𐎶 I. 72. "Zázána," on the Euphrates.

Šavana. 𐎶𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶𐎶 xvi. 22. See "Atšavana."

Šalpoḥus. 𐎶𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶𐎶 vi. 33-4. A word with distinctive wedge, but the Persian term corresponding is lost, and the whole passage unintelligible.

- Šinni.   . The root of a neuter verb, "to come."
Sinnik, "he came," I. 73-4; II. 50-1.
Sinnifa, "they came," II. 24, 29, 33, 41, 45.
Sinnigat, "[until] I came," I. 40; II. 21, 37, 48.
- Šisni.    iii. 16; xv. 12, 15. Written with the addition of *ni* in xvi. 20, and of *na*, in xv. 12, 15; the Persian is *nibam*, which is believed to signify "magnificent."
- Šiyatis.     v. 6; "šiyatim" in vi. 3. The transcript of a Persian word, occurring under the same combination in all the small inscriptions: "who gave *šiyátim* to man." Several guesses have been made, to which I may add the following: it may be allied to the Sanskrit *चिनि* and Zend *šiti*, meaning the earth as "a dwelling," not as a "globe," or "world." The meaning would be "who gave the earth to man [as a dwelling]." There is the objection of the long vowel, but I see no other.
- Šutša.    II. 25. "Zuza," a town in Armenia. The name is lost in Persian; in Babylonian it is    *Zuzu*.
- Šunkuk.     xv. 18, }
 Šunuk.    xiii. 12, } "Empire," "dominion."
- The varied spelling appears to shew that the sound of  was *ng*.
- Šuṣ.   L. 5. One of the four objects made by Darius. See "Aṭuṭ."
- Šutavan.    vi. 44. See "Yašutavan."
- Sen. . Root of the verb-substantive.
Senri, "he was," or "they were," I. 36; II. 13, 69; L. 4. In the first and second case the Persian has *aha*; in the others there is no Persian. There are faint marks of a letter after *senri*, in I. 36, but too slight to decide upon. In III. 78, where the plural "they are" is required, I incline, after all, to read *appo senri pi*, "who are." In II. 1, we have the regular conjunctive *sennigat* after *kus*; in II. 7, the same after *avasir*. *Senpafa*, in III. 72, must be a past tense of the neuter form.
- Senrit.    I. 66-7. A substantive preceded by the horizontal wedge; must mean "river," or "bank." *Sir* in Chere-

miss, and *syryä* in Finnish, is "shore," "bank," which may be a slight corroboration of the sound attributed to the first character.

- Chifa. II. 56, 65-6. "Palace," "court."
 Chitu. III. 86. Apparently an error for "yechitu."
 Chispis. I. 4. "Chishpish" (Teispes).
 Chissa. vi. 11. The Persian *chitra*, "the race."
 Chissantakma. Detached G.
 replaces in II. 59. "Chitratakhma."

Chiya. "To see."

Chiyas, "[the people] saw," II. 56, 66.

Chiyainti, "thou seest," III. 84, 85.

Thap chiyasa, "when he saw," vi. 27. We have a subjunctive in Mordwin like this; *sodasa*, "I should know;" but the third person would be *sodasaro*. See Von der Gabelentz, p. 384; see also Grammar, *supra*, p. 82.

Chiyamak, "that may be seen," xv. 15. See Grammar, p. 88.

Chotas. I. 48. "The religious rites" (?)—the *Abá-charish* of the Persian.

Chova. III. 82. See "Afchova."

Yanahi. xvi. 22. Transcript of the Persian *yanaiya*, but I know not its meaning.

Yasutavan. vi. 44-5. This may be "I pray," though it does not look like a first person; but we have hardly anything in the present tense to compare it with.

Yahutiya. III. 1. "Yutiya."
 See "Ihutiya."

Yu. xviii. 4. "I." Used instead of in the Artaxerxes Inscription.

Yu is also the root of the remote demonstrative pronoun; of which we have the forms following: *yupa*, "that," vi. 16; *yupaša*, xv. 20, and *yupaša*, xviii. 24, "that," indefinite; *yupipa*, "they," II. 11; III. 41; *yupipana*, "of them," III. 72. In xv. 2, we find *hupa*.

- Yufri. >𐰢𐰪 < 𐰢𐰪 >𐰢𐰪 < *passim*. "He."
- Yupo. >𐰢𐰪 < 𐰢 I. 43; III. 17, 18, 33, 45, 46. "Chief," "principal." Always in the plural, *yupo-fa*, and in the same combination.
- Yupogat. >𐰢𐰪 < 𐰢 >𐰢𐰪 >𐰢𐰪 III. 80. The analogy of the preceding word would lead us to expect a verb meaning "to be elevated," "despotic," and this is consistent with the context.
- Yutarvas. >𐰢𐰪 < 𐰢𐰪 < 𐰢 vi. 35, 36-7. Means "that" or "then." The inscription is mutilated in both cases: and in one looks not unlike *yupipa*. By a letter recently (Feb. 1853) received from my friend Westergaard, I find that in his MSS. notes he has >𐰢𐰪 < 𐰢𐰪 < 𐰢 in l. 35; but this affords no help, and is less probable than his published transcript.
- Yut. >𐰢𐰪 < 𐰢𐰪. "To be," and "to make." Extensively used. See Grammar, p. 81.
- Yuttana. >𐰢𐰪 < 𐰢𐰪 >𐰢𐰪 >𐰢𐰪 III. 90. "Utana," son of Thukra.
- Yuttu. >𐰢𐰪 < 𐰢𐰪 >𐰢𐰪 II. 22. "I sent."
- Yutro. >𐰢𐰪 < 𐰢𐰪 >𐰢𐰪 I. 63; II. 81. When joined with the verb *noga*, "to move," or "lead," gives it the signification of "sending:" the word has the distinctive wedge; it means apparently "an envoy," and must be derived from the same root.
- Yuvanis. >𐰢𐰪 < 𐰢𐰪 < 𐰢𐰪 I. 43; II. 25. In the first instance corresponds with the Persian *dida*, "a fort;" in the second with *avahana*, "a residence."
- Yuvenpa. >𐰢𐰪 < >𐰢𐰪 >𐰢𐰪 < I. 19. "Thus," or "therefore." Persian *avathá*. In III. 67, 87, the word may be synonymous with *yupa*, or it may mean "thus," "in that way," from the influence of the dative postposition.
- Yuvenpa-inraskimas. >𐰢𐰪 < >𐰢𐰪 >𐰢𐰪 < 𐰢𐰪 < 𐰢𐰪 < I. 5; III. 78.
- Yupa-inraskimmas. >𐰢𐰪 < < 𐰢𐰪 < 𐰢𐰪 < 𐰢𐰪 < 𐰢𐰪 < I. 38; III. 70.

This combination is always equivalent to the Persian *avakya-rádiya*, "for this cause," or rather "for the cause of this." *Yuvenpa* and *yupa* are clearly identical in value (perhaps in sound, *yuppa*); the nasal may form an incipient genitive like the *in* of

ko-fa-inna, the *na* being unnecessary in composition; *raskim* will be "cause," and *vas* the article. Those learned in the Ugrian tongues will judge if there be any foundation for this conjecture.

Ye. $\rightarrow \Rightarrow$. "This," or "these." Used either before or after its noun; also alone. It means certainly "to him" when put before a verb. See Grammar, p. 71.

Yesi. $\rightarrow \Rightarrow \Rightarrow$. "Named," "called," *passim*. *Yz* in Cheremiss, is the root of the verb "to call."

Yesim. $\rightarrow \Rightarrow \langle \text{Y} \rangle \text{E}$ II. 55, 65. "Nose."

From the Ugrian *ner* and *nyr* meaning "nose," and the words meaning "a name," beginning with *ni* or *ne* in all the Ugrian and Siberian languages, I have sometimes been induced to call $\rightarrow \Rightarrow$ *ne*, but the very few other words having this letter, I believe only $\rightarrow \Rightarrow \text{Y}\text{E}$ and $\langle \text{Y} \rangle \text{E}$ $\rightarrow \Rightarrow \text{Y}\text{E}$, afford no corroboration.

Yes. $\rightarrow \Rightarrow \text{Y}\text{E}$ L. 5. One of the four objects made by Darius, preceded by \rightarrow . See "Aṭuṭ." It is not unlikely that the word is connected with *alyeṣ*, which means either "a house," or "a family."

Yechitu. $\rightarrow \Rightarrow \text{E}\text{M}\text{M} \rightarrow \text{E}\text{Y}$ *passim*. "Thus." I believe we have here a compound, *ye chitu*, "this way."

Yoṣ. $\text{E}\langle \text{Y} \rangle \text{E}$ I. 36, 42, 43, &c. "People." Generally used as a collective noun. In v. 5, *yoṣirra* means "mankind," and in l. 7, we have the genitive *yoṣirra-na*. The Scythic word *oiōp*, meaning "man," may give a very small amount of probability to the sound attributed to the character $\text{E}\langle \text{Y} \rangle$.

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ART. II.—*Notes on the Early History of Babylonia.*

By COLONEL RAWLINSON, C.B.

IN the numerous letters and papers which I have addressed during the last two years to the Secretary of the Royal Asiatic Society, and which have been either read at the meetings of the Society, or in some instances published in the Journal,¹ I have explained, in more or less detail, the successive discoveries which I have made in the history of ancient Assyria. Those discoveries have pretty well established the fact that an independent empire was first instituted on the Upper Tigris in the thirteenth century, B.C. They have furnished what may be considered an almost complete list of Assyrian kings from the above-named period to the destruction of Nineveh in B.C. 625, and they have further made us acquainted with the general history of Western Asia, during this interval of above seven centuries.

I now propose to state the results of my researches into the ante-Assyrian period, and to show that an inquiry which aims at the illustration of history from the local monuments, may be legitimately extended in Babylonia to the patriarchal ages.²

As it is now generally admitted that there is no sacred chronology beyond the time of Solomon, I shall not attempt to prove the antiquity of the Chaldees on scriptural authority, by fixing the period of the Exodus of Abraham—still less shall I pretend to trace back the years of the patriarchal genealogies to the era of Nimrod, and thus obtain a date for the building of Babylon. The gloss in the Toldoth Beni Noah,³ which describes the empire of Nimrod, is unquestionably

¹ Outlines of Assyrian History, attached to the Anniversary Report for 1852.

² For a *resumé* of the argument relating to this subject, see the third and fourth sections of Prichard's Note on the Biblical Chronology, appended to the fifth volume of his *Researches into the Physical History of Mankind*.

³ It hardly requires to be stated that the first portion of Genesis consists of a number of independent documents, each qualified by a distinct title, and belonging to a different age. The fragment which forms the 10th chapter bears the Hebrew title of Toldoth Beni Noah, or the Genealogies of the Noachidae, and is probably of the very greatest antiquity, inasmuch as it relates exclusively to the affiliation of races, and is independent of that chronological computation which is attached to the Toldoth Beni Adam and Toldoth Beni Shem, and which is indicative of a comparatively advanced period of civilization. Portions, however, of this chapter, such as the 13th verse, must assuredly belong to a period subsequent to the

a notice of great geographical value, and the incidental mention of "Ur of the Chaldees," as the primitive seat of the Jewish race, supplies a not less important item of ethnic information; but to build a chronological structure on such foundations, would be to abuse scripture, rather than to use it. I prefer at any rate to follow profane history; and to rest content, as far as dates are concerned, with mere approximations.

Our best authority on early Babylonian history would be undoubtedly Berosus, if his works had descended to us entire; for he was a priest of Belus, well skilled in the learning of his class, and he wrote moreover in an age when the Cuneiform character was still in

Hebrew occupation of Palestine, since explanations are there given which could only be intelligible to parties well acquainted with the geography of the province. The reasons which lead me to regard the 9th, 10th, 11th, and 12th verses as a gloss of even later date, are as follows:—1stly. The general tenor of the document is simply that of the affiliation of races, while at the 9th verse the ethnic series is abruptly interrupted to introduce a popular saying about Nimrod, and to describe the geography of Babylon, neither one subject nor the other possessing any interest for the Jews, or being by possibility within their cognizance at the time of their passage from Egypt to Palestine, or indeed at any period of their history earlier than the Babylonian captivity. 2ndly. If we accept the text as it stands at present, Asshur is anticipated, and transferred from the line of Shem to that of Ham; while we must further suppose the city of Babylon to have been built three generations before the tower of Babel and the confusion of tongues, in which latter event, however, we are expressly told (chap. xi. v. 9) the name originated. 3rdly. Whatever may be said of the Babylonian names, those of the Assyrian capitals are all comparatively modern. Calah was not founded till about 1000 B.C., nor was Nineveh more than a few centuries more ancient. The primeval Assyrian capital was *Asshur* or *Ellasar*, and the name was not exchanged for *Resen* till towards the close of the empire. 4thly. The Samaritan version is well known to follow the Samaritan text in general with the most scrupulous fidelity; yet in the particular verses in question almost all the names are altered, and it is difficult to believe that the translator would have taken such a liberty with the passage, had it formed an integral portion of the inspired text. At any rate, it is more reasonable to suppose that the Samaritan translator found the verses still retaining their original form of a gloss, and that he thus interpreted them without hesitation, according to his own geographical knowledge; the example, moreover, which he gave of explaining, rather than transcribing, being followed by most of his successors.




I will only add that these remarks are not penned in any irreverent spirit for the authority of Scripture. Chevalier Bunsen has already familiarized us with the idea that the Toldoth Beni Noah is a mere "historical representation of the great and lengthened migration of the primitive Asiatic races of mankind;" and there can be nothing repugnant, therefore, to the religious feeling of the age in the explanation which I have ventured to give of a portion of this document. I would refer indeed to Dr. Prichard's temperate and enlightened note on the Biblical Chronology, already quoted, as a proof that the severest criticism may be applied to the book of Genesis without in any way impugning its canonical authority.

current use,¹ and when materials for precise information in regard to dynasties, names of kings, and chronological dates, were thus certainly at his disposal. He must have been in fact as well qualified to tabulate the Babylonian kings, as Manetho was to classify the thirty dynasties of Egypt. Unfortunately, however, we have only one solitary fragment of Berosus on primeval Babylonian history, and that fragment is imperfect.² The Germans, it is true, have recently suggested a most ingenious method of restoring the text.³ By supplying the number 258, for the duration of the second historical dynasty of Berosus, which is wanting in the MS., and by further designating this nameless dynasty as Chaldæan, they obtain two results, the coincidence of which is, to say the least of it, curious; 1stly, the date of the institution of a Chaldæan empire is assigned to the year a.c. 2224, in precise conformity with the numbers obtained by Callisthenes at Babylon; and 2ndly, the aggregate of the eight post-diluvian dynasties of Babylon, consisting of one mythical and five historical dynasties preserved by Berosus, and two others elaborated from history, is found exactly to fill up the great cycle of ten sari or 36,000 years,⁴ to which the Chaldæans are supposed to have attached so much importance.

¹ Berosus flourished from the time of Alexander at Babylon (a.c. 331) to the reign of Antiochus Soter, his great historical work having been dedicated to the latter king in a.c. 279. For the authorities, see Müller's *Frag. Hist. Græc.*, vol. II. p. 492. As Cuneiform tablets, therefore, have been lately found, differing in no respect from the ancient writing, and which are dated in the reigns of Seleucus and Antiochus, I am quite justified in asserting that the original historical records of Babylon were accessible to the researches of Berosus.

² This fragment, which is a quotation by Alexander Polyhistor from the *Βαβυλωνιακά* of Berosus, was first published in the Armenian Eusebius (see Aucher's *Eusebii Chron.* vol. I. p. 40). Syncellus (p. 78) has the same extract (copied probably from Eusebius), but he has so altered the numbers, and distorted the entire sense, that the value of the passage is lost. It is, however, to this source alone that we are indebted for our knowledge of Berosus having mentioned the name of Zoroaster.

³ See the *Rerum Assyriorum Tempora Emendata* of Dr. Brandis (Bonn, 1853), and the reference to Gutschmid's Essay in the *Mus. Rhen.*, given in p. 16.

⁴ I do not, I confess, find it anywhere stated that this cycle was known to the Babylonians. The Germans seem to have merely inferred that as the Nerus, or ordinary great year, according to Josephus consisted of 10 Sossi ($60 \times 10 = 600$), so the astronomical great year must have consisted of 10 Sari ($3600 \times 10 = 36,000$). That the Babylonians did really make use both of the centesimal and sexagesimal notation, as stated by Berosus, is abundantly proved by the monuments; and from the same sources we can illustrate the respective uses of the *Sarus*, the *Nerus*, and *Sossus* in the calculation of the higher numbers. The phonetic reading, moreover, for a *Soss*, constantly occurs,    *Sussu* in the singular, and

sistency of the restored numbers with ordinary life-tables, in yielding an average of $23\frac{1}{4}$ years ($258 \div 11$), for each generation of the name-

In Roman numerals this is simply

Soss.	units	
43	21	= 51^2 or 2601
45	4	= 52^2 „ 2704
46	49	= 53^2 „ 2809
48	36	= 54^2 „ 2916
50	25	= 55^2 „ 3025
52	16	= 56^2 „ 3136
54	9	= 57^2 „ 3249
56	4	= 58^2 „ 3364
58	1	= 59^2 „ 3481
60	00	= 60^2 „ 3600

Now as we here find the unit, the *Soss*, and the *Sar*, to be each represented by Υ , while the decades of each series are indicated by \angle , it is evident that the Babylonian notation consisted of a double recurring series, in which the elements \angle and Υ were used respectively for the decades and units of the integers of 60. Applying this system of notation to the numbers of Berosus, 34,080 will be represented by $\begin{smallmatrix} \Upsilon \Upsilon \Upsilon \\ \Upsilon \Upsilon \Upsilon \end{smallmatrix} \angle \angle \begin{smallmatrix} \Upsilon \Upsilon \Upsilon \\ \Upsilon \Upsilon \Upsilon \end{smallmatrix}$, which I should read as 9 *Sari* and 29 *Soss*, but which may be equally well expressed by 9 *Sari*, 2 *Neri*, and 9 *Soss*, the very words quoted by Syncellus from Polyhistor. If there had been any fractional parts of a *Soss*, a third series of the signs \angle and Υ would have been added. There was probably also a higher number in the next ascending series of 60 beyond the *Sar*, which gave as its product 216,000, and two of these periods constituted the antediluvian cycle of Berosus, computed by Syncellus at 432,000 years.

And while I am now discussing the notation of the Babylonians, I may as well give the phonetic reading of the numbers, as they are found in the Assyrian vocabularies.

$$\begin{aligned}
 \Upsilon \angle &= \angle \overline{\Upsilon \Upsilon} \Upsilon \text{ } \textit{aliter} \text{ } \overline{\Upsilon \Upsilon} \\
 \angle \angle &= \overline{\Upsilon \Upsilon} \angle \rightarrow \Upsilon \nabla \Upsilon \Upsilon \\
 \angle \angle &= \overline{\Upsilon \Upsilon \Upsilon} \angle \angle \angle \rightarrow \Upsilon \nabla \Upsilon \text{ } \textit{aliter} \text{ } \Upsilon \Upsilon \\
 \angle \angle \angle &= \overline{\Upsilon \Upsilon} \angle \Upsilon \nabla \Upsilon \\
 \angle \angle &= \angle \angle \angle \overline{\Upsilon \Upsilon} \Upsilon \Upsilon \\
 \angle \nabla &= \overline{\Upsilon \Upsilon} \Upsilon \angle \angle \overline{\Upsilon \Upsilon} \textit{aliter} \rightarrow \text{or} \rightarrow \Upsilon \Upsilon \\
 \angle &= \overline{\Upsilon \Upsilon} \Upsilon \overline{\Upsilon \Upsilon} \\
 \nabla &= \overline{\Upsilon \Upsilon} \angle \angle \Upsilon \angle
 \end{aligned}$$

less dynasty. On the latter ground indeed the restoration cannot be far wrong, and we may thus assume it as proved, that Berosus dated the commencement of his second historical dynasty of Babylon from the latter half of the twenty-third century B.C.

That is—

60 = <i>Sussu</i>	שָׁשִׁים Compare
50 = <i>Khansa</i>	חֲמִשִּׁים
40 = <i>Irbaya</i> (or <i>Irba</i>)	אַרְבָּעִים
30 = <i>Slasa</i>	שְׁלֹשִׁים
20 = <i>Sinra</i> (?)	שְׁנֵי
(perhaps 2 tens, as <i>eshra</i> is 1 ten)	
15 = <i>Khamis sirat</i> .	חֲמִשָּׁת עֶשְׂרִי
10 = <i>Erat</i>	עֶשְׂרִי
5 = <i>Khamisti</i>	חֲמִשָּׁה

On another fragment we have—

𐎶𐎶𐎶𐎶 = 𐎶𐎶 𐎶𐎶𐎶𐎶	(probably 𐎶𐎶)
𐎶𐎶 = 𐎶𐎶 𐎶𐎶	
𐎶 = 𐎶𐎶𐎶 𐎶𐎶	
𐎶 = 𐎶𐎶 𐎶𐎶𐎶 𐎶𐎶	

That is—

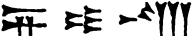



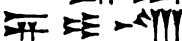
8 = <i>Trumana</i> . . .	שְׁמֹנֶה
6 = <i>Trudu</i> (Chal.) .	שֵׁשֶׁת
4 = <i>Rubu</i>	רִבְעָה
2 = <i>Sunnu</i>	שְׁנֵי

These readings are valuable, not merely for their Semitic forms, but also for their grammatical peculiarities.

Mons. Oppert communicated to me last year a theory, which he has probably published before this, that the use of the *Soss*, *Ner*, and *Sar* originated in the minor divisions of time. The *Soss* he supposed to be the hour of 60 minutes; the *Ner* (Arab. نهار) the day of 10 hours; and the *Sar* (شهر) the month, containing 60 of these 10-hour periods. But this explanation does not, I confess, appear to me at all satisfactory. I know of no authority for a decimal horary division. I doubt much if נֶרֶךְ or נְהַר, although used for the day-light, ever designated a period either of 10 hours or 12; and I question still more the existence in Babylonian of the Arabic word *Shahr* for a month. Having stated that the phonetic

On his first or Median dynasty, which reigned for 224 years previously, I shall have much to say presently, but in the mean time I confine myself to the examination of this approximate date of B.C. 2234, for the institution of a Semitic empire at Babylon.

That this empire was Semitic, and that it superseded a Scythic occupation of Babylonia, I infer from many circumstances. The astronomical observations which Callisthenes sent to Aristotle from Babylon,¹ and which ascended to 1903 years before the occupation of the city by Alexander ($331 + 1903 = 2234$), were certainly recorded upon cuneiform tablets, and these tablets seem in Babylonia to have been introduced by, and to have exclusively belonged to, a Semitic priesthood;² at least, from the earliest period to the latest, the inscriptions of Babylon and Chaldæa bear the same monograms for the gods, the same names of countries and cities, the same titles for the kings; and although, as might be expected when the inquiry extends over a period of two thousand years, there are sensible varieties of language, still the structure is throughout Semitic, and the relics may be thus determinately assigned to kindred branches of the same stock. Whether the name of Chaldæan or Aramæan, or

forms of *Ner* and *Sar* are still desiderata, I may add that in two passages of the Assyrian syllabary  *Niru* is given as the phonetic plural for a very complicated monogram , which is explained in the left hand column as  *Sudun*, a term perhaps allied to  six, though the initial sibilant is of a different class; whether  indeed does really represent the *Nnp* of Berosus I consider extremely doubtful.

¹ See Simplicius ad Aristot. de Cœlo, lib. ii. p. 123. There is, I believe, also an allusion to this date in the Scholiast to Aristophanes; but I have not the authority to refer to at Baghdad.

² I have not made much progress as yet in reading the primitive Babylonian manuscripts; indeed, until within these few days, I have not had sufficient materials at my disposal; for the bricks and seal cylinders contain nothing but names and titles expressed by arbitrary monograms, and afford, therefore, very little insight into a language. Now, therefore, that I have received Mr. Loftus's collection of primitive Chaldæan tablets from Senkereh, I hope to make good progress. I already see, indeed, that the same pronouns and particles occur as in the later Babylonian, and that the verbs and participles are formed in the same manner; so that I have no hesitation in pronouncing the language to be Semitic; and this, be it observed, is in opposition to my former opinion, which, from the want of such evidence, questioned the Semitic affinity of the language. Although it was always clear that the same monograms expressed the same ideas, it by no means followed that the same phonetic terms were employed in the two languages; indeed, the analogous comparison of the Armenian with the Assyrian rather led to a contrary conclusion.

even Elymæan,¹ may be most appropriately applied to the colonists who first introduced the art of writing, we cannot at present decide—it is sufficient to know that they belonged to the Semitic family, and that they first rose into power in Babylonia, in the latter part of the twenty-third century B.C.²

¹ The ethnic character to be assigned to the Elymæans still continues to be one of the most obscure questions connected with cuneiform research. Elam is allied with Asshur and Aram in the Toldoth Beni Noah, and a Semitic origin would seem, therefore, to be proved; but the native inscriptions of Susa and Elymais are undoubtedly written in Scythic dialects, more nearly related to the language of the second column of the trilingual Achemenian records, than to any other class of cuneiform documents. As these inscriptions, moreover, are certainly of very great antiquity, I can only suppose that the Semitic Elymæans gave way to Scyths before the historic period, and that these latter inherited the name as well as the country of the race which they had dispossessed. In fact, I conceive the same irregular nomenclature to have prevailed in Susiana, although reversed in its application, which has often been remarked upon in Syria. In that country, the Hamite or Scythic name of Sidon was retained after the city was peopled by the Semites, in Susiana; and the Semitic title of Elam was preserved after the country was peopled by the Scyths.

² I have recently met with a date which confirms, in a most remarkable manner, the testimony of Callisthenes, and the restoration of the numbers of Berosus. I had always been aware, of course, that Pliny, in his discourse on the invention of writing, quoted the authority of Berosus and Critodemus for assigning to the Babylonian stellar observations an antiquity of 480 years—"ex quo apparet æternus literarum usus;" but, as I presumed these numbers to refer to the age of Berosus, and thus to ascend no higher than the eighth century, I could only suppose some fatal corruption of the text. On re-examining, however, the passage of Pliny, I see quite clearly that the numbers of Berosus refer to the era of Phoroneus, and record, in fact, a genuine Babylonian date adapted to the Greek calendar. "Anticlides," says Pliny, "reports that letters were invented in Egypt by a certain man of the name of Menon, fifteen years before Phoroneus, who was the most ancient king of Greece, and endeavours to prove this from the monuments; but Epigenes, on the other hand, a first-rate authority, maintains that the Babylonians had recorded their sidereal observations inscribed on tablets of baked clay for 720 years [before that era]; and even Berosus and Critodemus, who are the most moderate calculators, say for 480 years, from which we may infer the extreme antiquity of the use of letters." (See Plin. Nat. Hist., lib. vii. c. 56.) Now, as Clinton, from a very large field of induction, and irrespectively altogether of the coincidence I am about to mention, has fixed the age of Phoroneus, as understood by the Greeks, to be A.C. 1753, we have an exact identity between the numbers of Berosus and Callisthenes; 1753 + 480, and 330 + 1903, giving the same result of A.C. 2233, for the primitive Semitic era of Babylon. In the text I have followed the Germans in placing Alexander's conquest of Babylon in A.C. 331, instead of in 330, which is the usual chronological date, and there is thus the difference of a year in the Babylonian epoch; but this is of no consequence. The numbers of Epigenes, which exceed those of Berosus by 240 years (or by 230, if we follow some of the MSS. of Pliny), include, no doubt, the Median dynasty, which preceded the Semites in Chaldaea, the duration of which was calculated by

There is still another Greek date for the building of Babylon, or, as I would rather understand the passage, for the institution of a Semitic empire on the Euphrates, which has hardly received the attention that it deserves. Philo Byblius, as he is quoted by Stephen,¹ contradicts the statement that Babylon was built by Semiramis, and observes that it was in reality 1002 years older than the Assyrian queen.² This remarkable number evidently implies an attempt at definite chronology, and what that chronology was we may infer from an independent statement of the same author, that Sanchoniathon lived under Semiramis, who was contemporary with the Trojan war.³ Now the Trojan epoch was variously calculated by the Greeks,⁴ a period of above two centuries intervening between the lower date of Callimachus, and the higher date of Duris. The best authorities, however, place it late in the thirteenth century B.C.; the Parian marble in 1219; Hellanicus in 1229; and 1002 added to this latter number, will give the date of B.C. 2231; which accordingly differs by only three years from the Babylonian era of Callisthenes. That Philo really also intended to assign this approximate date to the building of Babylon, may be gathered from his special notice of Semiramis being contemporary with the war of Troy; for the Assyrian empire actually commenced in B.C. 1273;⁵ and as Semiramis, according to the popular tradition, was the second monarch, succeeding Ninus after a long reign of fifty-two years, her supposed era of B.C. 1221 would fall within the period assigned by the Parian marble to the Trojan expedition.

It is an ungracious task to attempt to extract dates from barren

Berosus at 224 or 234 years; but it may fairly be questioned, in the absence of all local evidence, if the Scythians really recorded their observations upon tablets. Consult Clinton's *Fasti Hellenici*, vol. I. pp. 9, 139, and 282.

¹ Stephen de Urbibus, in voce Βαβυλών.

² The value of this quotation is of course impaired by the discrepant numbers of Eustathius, who, in his commentary on verse 1005 of the *Periegesis* of Dionysius, writes the date in full, *χίλιος ὀκτακοσίους*, so that, whether he followed Stephen or Philo, he must have read the numbers *α'* instead of *αβ'*—1,800 years, however, before the Trojan war falls in with no era whatever; and Eustathius, therefore, in all probability, was misled by a textual error. See Müller's *Greek Fragments*, Vol. III. p. 575.

³ See Gaisford's *Eus. Pr. Ev.* 1, 9, 2; and Müller's *Fragments*, Vol. III. p. 563.

⁴ For the Trojan era I have merely consulted Clinton's *Fasti Hellenici*, Vol. I. p. 123; Larcher's *Herodotus*, tom. VII. p. 352-404; and Müller's *Fragments*, Vol. I. p. 571.

⁵ That is, 747 + 526, according to the computation of Berosus preserved by Polyhistor, as already quoted.

catalogues of kings, or to quote the results obtained from such catalogues by professed chronologers; for even where the numbers come out satisfactorily, we have the consciousness that much is due to manipulation and systematic arrangement. This remark applies especially to the Assyrian canon of Ctesias, and to the use that has been made of it by his followers; that is, by Diodorus and Æmilius Sura, by Castor and Cephalion, and especially by Eusebius and Syncellus. Historically this famous canon is almost worthless, the small ingredient which it contains of traditionary truth being insufficient to leaven the general mass of fable. Chronologically too, since it depends for its closing point upon two events which are entirely fictitious—namely, the destruction of Nineveh under Sardanapalus, and the synchronous establishment of an independent Median dynasty—and since the duration of the several reigns which form this latter supposititious dynasty constitutes the only link of connection between the early Assyrian series and the era of Cyrus at Babylon, the approximate accuracy of the general result in assigning the institution of a Semitic empire to the close of the twenty-third century B.C., is liable to be looked on as a mere happy coincidence¹—at any rate this general accuracy cannot be held to authenticate the arrangement of the details, nor even to prove the integrity of the numbers employed. If we could be sure that Ctesias, independently of all adjustment of his numbers to the first Olympiad, really placed the era of Ninus at an interval of one thousand years above the Trojan expedition, then we might accept his authority as indicating an ancient tradition, and thus affording a valuable corroboration of the date already obtained from Philo for the building of Babylon; but it is equally doubtful whether this statement belong to Ctesias, and whether, if it be his, it do not proceed from computation rather than from an independent source.² As a general rule, indeed, we may

¹ The Assyrian reigns of Ctesias, with their respective duration, and the period at which the dynasty closed, were differently computed by all the chronologers, although they drew their information from the same source. The calculation of Syncellus was the nearest to the truth, though quite wrong in its details; for, by assigning the close of the empire to B.C. 826, under Ariphron at Athens, and by computing its duration at 1460 years, he obtains the date B.C. 2286 for its commencement; and if from this number we deduct 56 years for the reign of Belus, we have B.C. 2230 for the era of Ninus, which only differs by four years from the Babylonian date of Callisthenes. See Clinton's *Fast. Hell.*, Vol. I. p. 268.

² Clinton believes the statement, which is only found in Diodorus, to proceed from Ctesias, and even speculates that Ctesias, like his contemporary Iocrates, placed the fall of Troy a few years below the epoch of Eratosthenes (*Fast. Hell.* I. 268); but I should rather ascribe the calculation to Diodorus himself,

assume, I think, that the many relative dates in the canon which connect Greek and Assyrian history, and which are thus so often cited as a proof of the authenticity of the lists, were obtained either by Ctesias or his copyists, from the simple calculation of the numbers assigned arbitrarily to the reigns of the different kings of Nineveh, as compared with the standard epochal dates of Greece; in the same way that the Hebrew synchronisms were certainly added by later christian compilers from a collation of the same numbers with the received scripture chronology.¹ Although, however, I thus summarily reject both the authorities and the facts of Ctesias, I have no doubt but that at particular points a glimmering of truth is to be found in his scheme of Oriental history—he was aware for instance that a Median kingdom independent of Babylon, followed on the destruction of Nineveh—he had also heard of the domestic revolution at Nineveh (in B.C. 747), which put an end to the original imperial family, and substituted the lower dynasty in its place—he was perhaps even acquainted with the general nature of the Semitic claim to antiquity, and thus adjusted his numbers so as to fall in approximately with the true dates; but he was guilty of gross errors both of omission and commission—he confounded in the first place Assyrian with Babylonian dominion, and he supplied all details both of nomenclature and chronology, with a single exception,² from his own unassisted imagination.

That Ctesias, at the head of his history, had substituted an Assyrian for a Babylonian empire, was always to be suspected from his placing the capital of Ninus, and his place of sepulture, upon the Euphrates, instead of on the Tigris;³ as well as from his subsequent

since it is not mentioned either by Eusebius or Syncellus, and is even at variance with their numbers.

¹ The Greek synchronisms are, the war of Perseus and Bacchus, the Argonautic expedition, the Trojan war, the era of Lycurgus, &c. The principal scriptural dates are, for the birth of Abraham and the Exodus from Egypt, calculated according to the numbers of the Septuagint; but the canon of Eusebius of course aims at a complete scheme of general comparative chronology from the most ancient times to his own days.

² This solitary instance of accuracy in regard to names is in the notice of Boloehus and Semiramis (or *Phulakh* and *Sammuramit*) and their being followed by *Balatar* (or *Tyktakh Palatar*), but in this case even it is doubtful if Ctesias recognised a change of dynasty; for Agathias and Syncellus, although using nearly the same names that are found in Ctesias, quote Bion and Polyhistor as their authorities for the revolution.

³ As Diodorus also places the capital of Sardanapalus on the Euphrates, it has been supposed that there was this radical geographical error in Ctesias' notice of Nineveh; but Nicolaus of Damascus, who also follows Ctesias in his account of

account of the magnificent works of Semiramis at Babylon, rather than at Nineveh. The error was rendered still more probable, by the near coincidence of his era of Ninus with the Babylonian date of Berosus. It is proved, I now venture to affirm, as far as such questions admit of demonstration, by the identification, through the name of Zoroaster, of the leading exploit of the so-called Assyrian king, with that ethnic revolution which in reality established Semitic supremacy in Babylonia; as well as by the evidence afforded by the inscriptions that the primæval seat of empire was in Chaldæa, and that Assyria was a tributary or subordinate government for at least one thousand years after the age of the pretended Ninus. Unless, indeed, the entire chronological structure of Ctesias is to be discarded as an absolute fiction, the only possible explanation of his system seems to be that he employed the names of Ninus and Semiramis as mere eponyms for the Semitic race; and that under the hyperbole of their wonderful achievements, he disguised the simple historical fact of the supersession of Scythic by Semitic power in Chaldæa and Babylonia.

This ethnic supersession, I conceive at the same time, to have been the most important political revolution of the ancient world, and I proceed accordingly to consider it in some detail.

ANTE-SEMITIC PERIOD.


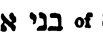



If we examine the traditions of the Greeks, as distinguished from their heroic myths, we trace everywhere a belief in the existence of a Scythic dominion of Asia, at the dawn of history. Justin assigns to this dominion a specific duration of 1500 years before it was overthrown by Ninus, but a much higher antiquity may be inferred from other authorities.¹ The Scythic supremacy was further distinguished by a peculiar religion, probably the worship of the elements (and of fire in particular) and of the heavenly bodies, as


the taking of Nineveh; names the river correctly the Tigris, and it thus seems probable that Ctesias, in his first description, where the river Euphrates is twice mentioned, really alludes to a capital of Ninus, distinct from the Assyrian Nineveh. The German geographers, indeed, upon these grounds, often place a "vetus Ninus" on the Euphrates near Babylon. If the primæval capital of Ctesias, however, have any historic identity, it is to be looked for at Warka or Mugheir; at any rate, in the lower basin of the Euphrates, and not on the upper part of the river, where canals of irrigation, the invention of a later age, were requisite for the production of corn and the other necessaries of life.

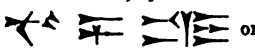
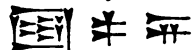
¹ Epiphanius and the chronologers define "Scythism" as the period extending from the flood to the age of Peleg or of Terah, the father of Abraham; and Plutarch and Pliny allude to the same period of extreme antiquity, when they place the age of the Scythic Zoroaster 5000 years before the Trojan war.

contrasted with idolatry, and the period therefore, during which it prevailed, was named *Σκυθισμός* by the Christians, who classified the religious epochs of the world, and who have certainly preserved many old fragments of great value.¹ With this religion, again, was especially connected the name of Zoroaster, which the Greeks translated "the star-worshipper:"² wherever, indeed, we meet with notices of a primitive Zoroaster, the allusion is, I think, to the elemental worship of the early Scyths, who preceded the Semitic idolators; and the extraordinary confusion which prevailed amongst the Greeks, with regard to the age of this personage, is to be explained probably, by the double period of the prevalence of the religious ideas which the name represented, that is by the existence of the elemental worship before the institution of a Semitic empire, and by the restoration of the same faith, or at any rate of a faith which went by the same name, by the Achæmenians, after the Semitic doctrines had been dominant for about seventeen hundred years. Now, although Justin appears to distinguish between the overthrow of the Scythians and the war of Ninus with Zoroaster, and although the latter name is replaced by Oxyartes, in the garbled extracts from Ctesias preserved by Diodorus, yet it can, I think, be clearly proved, that this so-called

¹ I refer especially to Epiphanius, John of Malala, the author of the Paschal Chronicle, John of Antioch, Cedrenus, &c.

² Diogenes Laertius (i. 8, de Magis), quoting Hermodorus and Dinon. Numerous explanations have been given of the etymology of this name by Bochart, Kircher, and others, more or less in accordance with the Greek translation, and all referring to Semitic sources (See Stanley's Philosophy, p. 758); but the critical judgment of the present age seems to prefer an Arian derivation, and to agree with Burnouf in referring all the Greek forms to the Zend word, *Zarath-ushtra*, "the possessor of yellow camels." I venture, however, to revive the Semitic theory, and to propose as the original form of the name  *Ziru-ishtar*, "the seed of the goddess," a regular Babylonian compound, very much resembling the  of Scripture.  *siru* (answering to the Heb.  comp.  Zerubbabel) is everywhere put for the Persian *tukhm*

( *tukhm*); and *ishtar*, denoting specifically the planet Venus, is used generally for female deities, like the Ashtaroth of Scripture. I must add that although we have not *Ziru-ishtar* in the inscriptions, as far as I know, for Zoroaster or the Hamites, yet we have constantly the analogous compound *Ziru-banit*

 or  as an epithet for Belus, the prototype of the Semites. I am in doubt about the meaning of *banit* or *panit*, but the epithet is of course the *Zerwan* of later times, who was understood to be the same as Shem, although the Berosian Sybil confounded this Zerwan with Zoroaster. See Moses of Chorene, Whiston's edition, p. 17.










Bactrian war was in reality nothing more than the supersession of the Scyths by the Semites in Babylonia. In the first place, Berosus himself designated the Median dynasty, which was driven out of Babylonia in B.C. 2234, by "the Hæresionym of Zoroaster."¹ That Ctesias also did actually name the Bactrian king Zoroaster, and not Oxyartes, is rendered almost certain, by the frequent occurrence of the former name in the fragments of his copyist Cephalion;² and that he even recognized the connection of this Bactrian Zoroaster with Babylon, may be inferred from a passage of Arnobius, where the first book of Ctesias is quoted, to the effect, that "Zoroaster contended with Ninus, not merely with steel and strength, but by magical force and the occult sciences of the Chaldeans."³

The next point upon which I shall insist, is, that these primitive Zoroastrian Scyths are identical with the Nimrod of scripture. The name of Nimrod, in the book of Genesis, certainly represents the original inhabitants of Babylonia, before the immigration of the Semites. The title is in all probability a disguised Semitic plural (*Nimrut* from *Nimr*), and as *Nimr* is the special name of the hunting leopard, it may have been given to the Scyths by their Semitic neighbours, to denote their passion for the chase.⁴ At any rate,

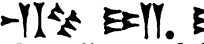
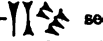
¹ The name does not occur in the extract from Polyhistor given in the Armenian Eusebius, but has been preserved by Syncellus.

² See the extracts of Cephalion, collected from Syncellus and Moses of Chorene, in Müller's Fragments, Vol. III. p. 623. In Syncellus, the name is *Ζωροάστρου μάγον*; in Mos. of Chorene, "Zaravaste, mago Bactrianorum rege." In another passage of Moses, also from Cephalion (lib. i. c. 16), Zoroaster is called "the Magian chief of the Medes," and is said to have been placed in the government of Assyria by Semiramis.

³ Arnobius, it must be observed, where he quotes the first book of Ctesias, which, as we learn from Photius, treated exclusively of the Assyrian "origines," expressly terms Zoroaster a Bactrian; and it is almost certain, therefore, that the passage quoted in the text, which commences "Ut inter Assyrios et Bactrianos, Nino quondam Zoroastreeque ductoribus," must also be drawn from the same source. I mention this, as Ctesias has often been cited as an authority for placing Zoroaster under Darius Hystaspes. I shall have occasion to refer to the famous Zoroastrian passage of Arnobius in another place. In the first book of Stanley's Chaldee Philosophy, the subject of Zoroaster is treated with all the learning that belonged to the age in which it was written.

⁴ The objection to this etymology is, that the word "leopards" often occurs in the Assyrian inscriptions under the form of     or    that is, *Nimri*, whereas the ethnic title is written   *Namri*, so that, if the two words were identical in their origin, their connection had been at any rate forgotten in later times.

Namra raba,¹ was a title used even by the later Chaldean kings, and the nation of the *Namri* are distinctly marked in the inscriptions as a Scythic race, who were cognate with the Elamites, and who inhabited the ranges of Zagros, from the lesser Zab to Susiana, during the period of the Assyrian supremacy. The direct connexion moreover of Zoroaster and Nimrod may be inferred from a multitude of authorities. According to one tradition, Orion being invoked, Zoroaster was consumed by fire, and apotheosized. According to another, Nimrod was worshipped by the Semites as Orion;² in fact the constellation is only known in Arabic astronomy to the present day, as *El Jabbar*, or "the Giant," the special epithet of Nimrod.³ Again, one of the most universal of the traditions regarding the primitive Zoroaster, was, that after his apotheosis, his ashes were preserved by the Babylonians and carried about as a palladium; indeed, according to a very ancient writer, the sacred relics were preserved to his day.⁴ In Greek mythology, these were supposed to be the ashes of Jupiter Enyalios,⁵ but if any explanation is to be obtained from the popular traditions of the East, the story must necessarily refer to Nimrod, who has been throughout Babylonia in all times the object of a general superstitious reverence. We may further compare the constant attribution to the first Zoroaster, of the institution of the fire-worship, with the legend which ascribed the same institution to Nimrod,⁶ as well as with the multitudinous

¹ This title, written as  is distinctly seen on an alabaster vase belonging to *Naram Sin*, one of the primitive Chaldean kings, which has been lately obtained by Mons. Fresnel at Babylon. In the ordinary Chaldean titles, however,  seems to constitute of itself a distinctive epithet; and I cannot, therefore, depend on its phonetic power.

² These traditions are to be found in the Paschal Chronicle, Cedrenus, and the Anonymous Chronicle prefixed to John of Malala.

³ Equivalent to the Hebrew גִּבּוּר, *Gibbur*, which is the particular title given to Nimrod in Scripture.


⁴ See Paschal Chron. ed. Dind., p. 67; and compare the following page, where the ancient Assyrian traditions are given on the authority of an ancient writer named Σιμωώνιος ὁ Βαβυλώνιος Πέρσης. Suidas, Cedrenus, and the anonymous chronologers repeat the same tradition.




⁵ See passage of Histæus in Müller's Frag., Vol. IV. p. 434, where, moreover, there is the remarkable phrase εἰς Ἐνυάλῳ τῆς Βαβυλωνίας.

⁶ Οὐτός (i.e. Nimrod) διδάσκει Ἀσσυρίους αἰεὶν τὸ πῦρ—Paschal Chron., p. 50. The most determinate proof, however, of the identity of Nimrod and Zoroaster is to be found in the common attribution to them of the invention of Astronomy, Astrology, Magic, and Genethliology. See particularly Anon. Chron. (John of Malala), p. 17, where the description given of Nimrod is precisely that which ordinarily belongs to the primitive Chaldean Zoroaster.

local traditions which, wherever a mound of ashes is to be seen in Babylonia or the adjoining countries, attach to it the name of Nimrud, in pretended allusion to the furnace of Abraham,¹ but really referring, as I think, to the primitive fire-worship of the Zoroastrian Scyths.








I will now endeavour to show who these *Nasiri* or Babylonian Scyths really were, in regard to their ethnic relations. The Toldoth Beni Noah, which is undoubtedly the most authentic record we possess for the affiliation of those branches of the human race which sprung from the triple stock of the Noachidæ, assigns Nimrod to the family of Ham, as distinguished from the Arian and Semitic group; and further, brings the nation thus designated into immediate relation with the Egyptians, the Æthiopians, the Lybians, and the Canaanites.² Such authority, is I think, then, determinate for deriving all



























¹ So at *Birs-i-Nimrud*, *Kutha*, *Akkerkuf*, *Warka*, &c. The Arabs generally derived, no doubt, their knowledge of Nimrod and Abraham from the Koran; but the commentaries and geographical explanations of the very early traditionists, who drew their inspiration both from the Talmud and from local sources, prove that the legend must have existed in the country long before the Mohammedan conquest. I suspect, indeed, that the Jewish rabbis adopted their forced reading of "fire" for , in order to fall in with the current popular tradition which connected Nimrod with the fire-worship; and this reading is at least as old as the third or fourth century, as it was known to, and partially approved by, St. Jerome.

² In the mere sketch which I am now writing, I cannot of course enter upon any general discussion of primitive Noachide ethnography. Referring, however, to the four sons of Ham, Cush, Mizraim, Phut, and Canaan, I may note as follows: The sons of Cush in the Bible, excluding Nimrod, designate the original Scythic colonization of Arabia from Susiana, the traditions of these colonists having been well traced by Caussin de Perceval, in the first book of his *Hist. des Arabes*. Of Mizraim, or Egypt, I will only remark that the  (or *Χαμωριται* of the LXX), from whom sprung the Philistines, are certainly the race called  in the inscriptions, who held all Southern Syria as a dependency of Egypt in the time of Tiglath Pileser I. (B.C. 1125). The reading of the name is doubtful, for, curiously enough  according to the vocabularies, has the power of *khasiw* as well as *khasma*: the concluding syllable is *nim*. *Phut*, although peopling Lybia, also left a large remnant in the mountains of Elymais; hence, *Cush* and *Phut* are joined with *Pars* in Ezek. xxxviii. 5; and the *Kushigæ* and *Putiæ* are associated in the inscriptions of Darius. The latter, whose Babylonian name was *Budu*, are the Median Βούδοι of Herodotus. All the Canaanites were, I am satisfied, Scyths; and the inhabitants of Syria retained their distinctive ethnic character until quite a late period of history. According to the inscriptions, the *Khetts* or Hittites were the dominant Scythic race from the earliest times, and they gave way very slowly before the Aramæans, Jews, and Phœnicians, who were the earliest and probably the only extensive Semitic immigrants.

the above races from a common Scythic origin, however their linguistic affinities may have been subsequently weakened by a diversity of development, or by the infusion of foreign elements. How long the aboriginal Scyths may have held the dominion of Western Asia before they were dispossessed by the Semites, it is of course impossible to say. Berosus had apparently the same ancient fragments at his command, for writing the early history of his race, which were embodied by Moses in the book of Genesis; and thus he describes the cosmogony, the antediluvian generations, the flood, the building of the tower, and the confusion of tongues, not merely under the same general treatment, but often in the very words of the Hebrew text;¹ yet he did not venture, even with these materials, to define the period of the primæval Scythic supremacy. The præ-historic

The Hittite capital was at *Carchemish*; but this city had nothing to do with Circæssium at the mouth of the Khabor, as is generally presumed; it was on the Euphrates, immediately contiguous to Hierapolis. Hence, the Syrians translated Carchemish by *Mabog* (2 Chron. xxxv. 20), which latter title, moreover, was a regular Achæmenian compound for "Mother of the Gods," the famous *Dēa Syria* of Lucian.

¹ Compare especially the ten antediluvian generations, the building of the ark, the sending out of the birds, the very connexion between Babel and the confusion of tongues, which, although no doubt a popular belief, is disproved by the cuneiform orthography     *Bab-il*, "the gate of the God Il." This *Il* is no doubt the Ἠλός of Sanchoniathon, and as the name is expressed by the letter  *ra*, I suspect an Egyptian origin, the same sign being used which would have been phonetically rendered *Ra* "the sun;" while the Semitic pronunciation was given of *el* or *il*, which may have been used by the primitive Semites for the same deity, though of this there is no proof. The god   is almost unknown in the later Babylonian and Assyrian mythology.

I must also notice, in regard to the traditions of Berosus, that his *Xisuthrus* is, I think, to be recognized in the god     which name, on the Tiglath Pileser Cylinder, replaces the ordinary    or                   

interval between the flood and the establishment of a kingdom at Babylon, he was content to compute by the astronomical notation of Sari and Neri; from the latter epoch alone, about the middle of the twenty-fifth century, B.C., did he attempt a definite chronology. Leaving it, therefore, still a matter of speculation whether the pre-historic period may be more correctly estimated at two thousand or four thousand years;¹ I will only remark, that it must have been during this interval that nationalities were first established; and that the aboriginal Scyths or Hamites appear to have been the principal movers in the great work of social organization. They would seem, indeed, simultaneously or progressively, to have passed in one direction by Southern Persia into India; in another, through Southern Arabia to Æthiopia, Egypt, and Numidia. They must have spread themselves at the same time over Syria and Asia Minor, sending out colonies from one country to Mauritania, Sicily, and Iberia; from the other, to the southern coasts of Greece and Italy. They further, probably, occupied the whole area of modern Persia, and thence proceeding to the north by Chalcis and the Caucasus, they penetrated to the extreme northern point of the European and Asiatic continents. It is well known to ethnographers, that the passage of the Scyths is to be traced along all these lines, either by direct historical tradition, or by the cognate dialects spoken by their descendants at the present day; and it is further pleasing to remark that, if we were to be thus guided by the mere intersection of linguistic paths, and independently of all reference to the scriptural record, we should still be led to fix on the plains of Shinar, as the focus from which the various lines had radiated.

When I propose to class the multitude of nations here indicated in a common Scythic category, I do not pretend that a connexion can be established between them, either by direct historical evidence or by any positive test of philology. All that I maintain is, that certain special ethnic names have everywhere prevailed amongst them, and that, either from ancient monuments, or from tradition, or from the dialects now spoken by their descendants, we are authorised to infer that, at some very remote period, before the rise of the Semitic or Arian nations, a great Scythic population must have overspread Europe, Asia, and Africa, speaking languages all more or less dissi-

¹ Lepsius raises the historic period of Egypt at least as high as 4000 B.C.; and Mons. Gobineau, in his excellent work "*Sur l'Inégalité des Races Humaines*" (tom. i. p. 367), assumes, as an established fact, that history is to be traced beyond the year 5000 B.C. When I speak of historic and pre-historic periods in this memoir, I refer especially to Semitic records.

milar in their vocabulary, but possessing in common, certain organic characteristics of grammar and construction. I will now briefly follow the various supposed lines of colonization. In Susiana, the chief seat of the Cush, we have the Scythic inscriptions of Susa and Elymais, and the Scythic names of *Kassia*, *Cossæa*, *Shus*, *Afar*, &c., not forgetting the traditions of the Æthiopian Memnon, and the Æthiopian Cepheus. Along the line to India, the Æthiopians of Southern Persia were known to Homer, Herodotus, and Strabo; the country east of Kerman, was named *Kusan*, throughout the Sassanian period; the *Brahui* division of the *Belûs* rejoined their Cushite brethren in Mekran, by crossing from Arabia, and still speak a Scythic dialect; while the names of *Kooch* and *Belooch*, for *Kûs* and *Belûs*, remain to the present day. Then we have Indo-Scythia, at the mouth of the Indus, and the crowning fact, that all the aboriginal (?) and præ-Arian languages of India are of the Scythic stock. In the Arabian peninsula, traces of the old Cushite tongues are now almost extinct, but there is no tradition better supported than their existence at a not very remote period of history. I suspect, indeed, that there is a strong Scythic element in the Himyaric itself, and that the character is very ancient, since there is a Babylonian cylinder in the British Museum, with a Himyaric legend, which, from the style of art, cannot be later than the Achæmenian period. The passage of the Cush into Æthiopia probably took place at many different epochs; the name indeed occurs, I believe, on the Egyptian monuments, as early as the twelfth dynasty; and it is now well known, that some of the Abyssinian and neighbouring languages are of the Scythic or Hamite stock. In the ancient Egyptian itself, moreover, there is probably an original Scythic element overlaid by Semitic forms, and the same may be said of the Berber. I would further class what is called the *Tugga* character, in the bilingual inscriptions of Numidia, with those remarkable legends which have been found in Sicily and Cyprus, and which, to a certain extent, resemble the Celto-Iberian writings; all these alphabets, at any rate, are especially distinguished from the Phœnician, which was the only other universal type in the Mediterranean, and they must therefore belong to the primitive Scythic colonists. With regard to the Scythic line which spread into Europe by way of Syria and Asia Minor, I have to state, that almost all the early cuneiform names, both of men and countries, throughout Western Asia, seem to be Scythic: a few are Arian, but in the early times, Semitic influence, as far as I can ascertain, must have been very limited. With the exception of the Kenites, Kenizzites, and Kadmonites (and the Phœnicians from about

B.C. 1200), I take all the races of Syria mentioned in Scripture, as well as in the Egyptian and Assyrian inscriptions, to have been Scythians; and in Asia Minor, the only Arian nations which I recognise with any certainty, are Tubal and Meshech. From Syria the Scythians probably crossed to Cyprus and Sicily, Southern France and Iberia, this line of emigration being well marked in classic authors, and the modern Basque language attesting the Scythic origin of the Iberians. From Asia Minor, the great Scythic stream which passed into Europe, I suppose to have been Tyrrheno-Pelagic, and I refer to the ancient Etruscans, and more doubtfully to the modern *Skipetars*, as a proof of the ethnic affinity of the early settlers. The whole Illyrian nation, indeed, including Macedonians, Epirotes, and Albanians, may have been of the true Scythic family, as distinguished from the Arian Hellenes. The Pelagians were probably Scytho-Arians, as the Etruscans were Scytho-Semites; and in this distinction between the compound character of the barbaric element which prevailed respectively in Greek and Latin, we see perhaps the reason of the predominance of Semitisms in the latter language, as compared with the former.

For the Scythic population of Persia anterior to the Arian immigration, the inquiry which I am now pursuing into the true character of the Zoroastrian Medes affords the best argument. The Scythic version of the Achæmenian tablets, is alone an evidence of the utmost weight; and notwithstanding all Dr. Hincks has written to the contrary, I am persuaded that the groundwork of the language of the said inscriptions is also Scythic and not Arian. The modern Armenian has been subjected to a much greater degree of Arian influence, but even there the Scythic element is perceptible, while the modern Georgian is probably the direct representative of the ancient Scythic, spoken in the time of Herodotus by the *Cush* or *Æthiopians* of Chalcis. Remark also, that the Scythians introduced the same names of Albania and Iberia in this quarter, which their kindred colonists applied to Greece and Spain; Iberia being in all probability the very same name as *Abar* or *Avar*, which followed them in all their migrations. I put no faith whatever in the Chinese derivation of the Persian *Kushan*, nor in the arrival from the far east of the Scythians who subverted the Greek kingdom of Bactria. These tribes were in reality the descendants of the aboriginal Persian *Cush*, who preceded the Arians; and the Parthian empire, established with such extraordinary facility, was but the recovery of Scythic supremacy, which had been interrupted for a time by the Arian Achæmenides. Thus, Armenian historians always name the eastern Parthians *Kushan*, and acknowledge their own connexion with them. Moses of Chorene

gives to each of the four great divisions of Persia, that is, to Media, Elymais, Persis, and even Aria, the generic name of *Kush*; and the *Kushan* are constantly mentioned by Firdousi as the aboriginal race. Even in modern Persian, the Scythic element is very clearly to be traced. I shall not pretend to pursue the steps of the Scyths beyond the Caucasus, but we have ample evidence of their progress in the languages still spoken in Europe by the Lapps, the Fins, the Esthonians, and the Magyars, as well as by the several divisions of the Ugrians in Asia, comprising the Woguls, Ostiaks, and at least one tribe of Samoyedes, and by the scanty and diminishing sections of the same nation on the west of the Volga, known to the Russians under the names of Mordwins, Cheremisses, Wotiaks, and Zyrianians. There is little in this sketch, I believe, which is new to ethnography, but it will serve to explain my general view of the ethnic affinities of the Persian Scyths.

To return, however, to the more particular illustration of the Babylonian Scyths; I would remark in the first place on the name of Medes, which Berosus gives to the particular branch or sect that established a kingdom at Babylon, in the twenty-fifth century B.C.; a name, moreover, which in other authors, in allusion to a common Zoroastrian faith, is constantly replaced by Bactrians. Now the Medes and Bactrians of a later age were undoubtedly Arians; but I fully believe that, at the period of which Berosus is writing, the countries known to the Greeks as Media and Bactria, were really inhabited by Scyths.

The *Namri*, at any rate, whom I take to be the descendants of the præ-Semitic Babylonians, held, during the period of Assyrian supremacy, the entire range of Zagros, together with the conterminous territory of Media; and to prove their ethnic relationship, I state the following facts: the *Namri*, in the inscriptions, are always joined with the Elymæans;¹ *Humba-negas*, indeed, the contemporary of Sargon, was king of the two nations,² and the Elymæan inscriptions, both from Susa and from Elymais Proper, are most positively in a Scythic dialect. Again, Mr. Norris has shown good reason for assigning the

¹ Thus, the King of Babylon assembles against *Shamas-phul*, on one side the Aramæans and Chaldeans, on the other the Elymæans and *Namri*. It must be confessed that, on the Nimrud obelisk, the kings of the *Namri* have Semitic names, that is, names compounded of the Assyrian gods; and the same remark applies in some cases to the kings of Elymais; but I suspect that these are instances of a foreign nomenclature, or that the Assyrians translated the Scythic vernacular names. At any rate, in the inscriptions of Susa and Elymais, the name of a Semitic god has never yet been found.

² This association is not clearly given in the published inscriptions of Khursabad; but on Mona. Place's new cylinders of Sargon it is distinctly stated.

To trace in any detail the ethnic relations of the Babylonian Scyths would occupy more time than I can conveniently spare; but I must at any rate note a few of the leading points which refer to them. Their connection with Egypt on the one hand, and with

geographers, Ibn Khordadbeh, &c., who were always seeking for Persian etymologies, read this name as *nim as rai*, and pretended it was so called from being *half-way* between the fire-temple of *Shir* (or *Ganzaca*) and *Otesiphon*; but I consider this explanation to be certainly spurious, and prefer regarding *Nimrah* as a genuine relic of the old Scythic inhabitants.

Again, there is no doubt but that the title *Nim-rux* (*meridies*) was applied to countries by the Persians of the Sassanian age, to denote a southern position (see *Bân-daesh*, *Moses Chorenensis*, and *Maasudi*); but this geographical indication will by no means explain the application of the name of *Nimrus* to the province of Seistan, which was in fact to the east or north-east of all the great Persian settlements. Bearing in mind, then, that Seistan, Segestan, or *Σαγαστίνη*, was inhabited by the Sacæ division of the Persian Scyths, at least as early as the time of Isidore of Charax, does it not seem probable that the title of *Nimrus* is a mere corruption of the Scythic name of *Namri*, nearly, in fact, reproducing the biblical form of *Nimrod*? The ethnic affinity of these Sacæ is at any rate proved by their association with the Scythic *Kushan* to the north and the Scythic *Turan* and *Kusan* immediately to the south; and it is certainly, therefore, not a little curious to find them designated by the same name which is applied to the Persian *Sakâ* in the Babylonian version of the Achaemenian tablets. My own idea of the connection between the *Namri* and *Sacæ* is simply this, that the names were given to the Scythian "hunters" by the Semites and Arians respectively, to denote their passion for the chase, the one race using as a type the *hunting leopard*, and the other the *hunting dog*. I will mention, at any rate, another instance of the association of the leopard and dog, which may be accidental, but which certainly seems to me worthy of being noticed. St. James of Seruj, describing the idols which were anciently worshipped at Edessa, Harran, and in the neighbouring countries, assigns *Bel* and *Nebo* to the former place, and *Sin* and *Beel Shemin*, or "the moon and sun" to the latter; he then goes on, "*ba bar Nimra va Mari di Kalbuti, Tarata va Gadlat*." Assmanni supposes all these to be names of Chaldean idols at Harran, and accordingly translates "the leopard son (Bacchus), the dog lords Tarata and Gadlat;" but I take *Bar Nimra* and *Mari di Kalbuti* to be geographical names, to denote, that is, the tribes who worshipped *Atargatis* and *Gadlat*, or *Venus* and *Diana*, two particular deities being throughout assigned to each locality. If it be so, then *Bar Nimra*, or the "leopard sons," will be the Scythian *Nimri*, and *Mari di Kalbuti* will be the "Sacæ Medes," who may, at the time in question, have inhabited the skirts of *Taurus*. At any rate, the Chaldeans of Harran, whose books we still have, certainly never worshipped "leopards" as "dogs;" and if the names, therefore, in St. James do really designate idols, they were the personifications of the ancient Scythic tribes. The Syriac passage is further of interest in giving us the true orthography (*ܢܝܡܪܐ*) of the Greek *Atargatis*, which also occurs in the Talmud (*De Idol. c. 1, f. 11, b*) as *נִמְרוֹת*. The Syriac *Tar'atâ* and *Gadlat* are no doubt the two supreme goddesses of the Inscriptions, $\rightarrow \text{I} \text{ } \star \text{E} \text{I} \text{ } \rightarrow \text{III}$ and $\rightarrow \text{I} \text{ } \rightarrow \text{V} \text{I}$, to adopt the most common types of expression; but there is no reason to suppose that the Syriac names were used at Nineveh and Babylon. On the contrary, Venus was almost

Media and Bactria on the other, is admirably illustrated by an ancient Greek fragment preserved in the Paschal Chronicle with regard to the eponymous hero Mesraim, and to the following effect. "This is the Egyptian Mesraim, who afterwards inhabited towards the east, and colonized Bactria, and named Inner Persia the Asoa of the great Indies—from this source impiety spread abroad throughout the world, for Mesraim was the inventor of those wicked arts named astrology and magic, and was the same whom the Greeks named Zoroaster."¹ Now the Scythic colonization of Egypt which is here indicated, must have taken place of course in the præ-historic period; but the encroachments of the Scyths to the east, that is, their gradual extension over Media and Persia, and as far as Bactria, where they came in contact with pure Arian races, was probably owing to their displacement by the Semites in Western Asia at the first dawn of history. I suspect, moreover, that owing to this displacement, a second Scythic immigra-



certainly known to the Assyrians as *Ishlar*, and to the Babylonians as *Nana*. To the phonetic name of Diana, I have no positive clue as yet; but Dr. Hincks is certainly wrong in suggesting *Gula*, for $\gg\text{Y}$ $\triangleleft\text{Z}$ $\gg\text{E}$ is the same goddess with $\gg\text{Y}$ $\gg\text{W}$, $\gg\text{Y}$ $\triangleleft\text{W}$ \triangleleft , or $\gg\text{Y}$ $\gg\text{Y}$ $\gg\text{Y}$ W , as may be proved by a host of examples; and the ideographs for the other goddess are $\gg\text{Y}$ $\triangleleft\text{E}$ $\gg\text{W}$, or $\gg\text{Y}$ $\triangleleft\text{W}$, or $\gg\text{Y}$ $\gg\text{W}$, or $\gg\text{Y}$ $\triangleleft\text{E}$ \triangleleft , or $\gg\text{Y}$ \triangleleft \triangleleft . In one instance only have I ever found $\gg\text{Y}$ $\gg\text{W}$ substituted for $\gg\text{Y}$ $\gg\text{W}$, and that is on a primitive Chaldean brick, before a due distinction probably had been established.

I also observe, in that most important list of the Chaldean gods of Harran given in the *Fihrist*, Bel, the destroyer of the *Nemour* (or *Nimri*), joined with Baaltis, the protectress of the *Maari* (or Medes). See *Jour. Asiat.*, 3rd Ser. vol. XII. p. 267. This list would be invaluable, if a correct MS. of the *Fihrist* could be consulted.

¹ This passage, moreover, seems to me to afford a most valuable explanation of the celebrated Zoroastrian notice of Arnobius, which has been so much discussed, and so variously understood. I would freely translate the passage as follows:—"Let us now speak of the Cushite Zoroaster at the torrid zone, the Magian of Inner Asia, a Bactrian if we agree with Hermippus, and let him be compared with the Armenian Zoroaster, whose exploits are related by Ctesias in his first book; or with the nephew and disciple of Hostanes, called Erus Pamphylius." The only novelty which I propose is to understand *Quis*, which is nonsense as the text now stands, to denote a Cushite. The torrid zone, then, exactly answers to the Greek idea of *Æthiopia* and "ab interiore orbe" will be the same as *την ἐσωτερικὴν Περίοδον*. It is impossible to say whether "Bactrianus" is given on the authority of Hermippus or Ctesias; but from Cephalaion we may infer that the latter author did really assert the Armenian descent of Zoroaster; and "Armenius, Pamphylius, Erus," agrees, moreover, with Plato. See the elaborate discussion of the passage in question in Stanley's *Philosophy*, p. 758.

tion to Africa did in reality take place about the same period, for the Arab traditions of the movements of the Cush (immediately cognate be it remembered both with Nimrod and Mizraim) before the settlement of the Semitic Joctanides in Arabia, and the Egyptian traditions of the Shepherd invasion, are singularly in accordance with such a theory, both chronologically and in the employment of certain characteristic ethnic names. To the connexion of the Elamites and *Namri*, or of Cush and Nimrod, I have more than once referred. These Elamites I have further stated to bear in the Achæmenian age the vernacular title of *Afar* or *Avar*,¹ and I have now to add that at an earlier period they had also the vernacular title of *Shus*, which indeed they imposed upon their capital.² If then we find that at the exact period of history when we can shew the *Namri* and Elamites to have been displaced from Babylonia by Semitic races, Scythic tribes bearing the names of *Shos* and *Avar* swarmed into Egypt and supplanted the native rulers, it is surely only reasonable to connect the two events together. I leave, however, to the appreciation of professed Egyptologists, this identification of the barbarian *Shos* or *Hyc-sos*, and their famous capital of *Avaris*, with the Scythic *Shus* and *Avars* of Elymais and Babylonia, merely drawing attention, firstly to the fact that the city of *Avaris* (a sacred name)³ is stated to have been built as a protection against the growing power of the Semites, and secondly, to the identical juxtaposition of the same two names in a later age, at another principal point of Scythic settlement. I allude to the *Kushan* of Khorassan, and to their capital city, which in the time of Alex-

¹ For Mr. Norris's opinion on the *Afar* of Susiana, see Journ. R. A. S., vol. XV. p. 3 and 164. The Amardi of the Greeks may have been a branch of the same Scythic family; but I doubt myself that there was any close or immediate connexion between them and the *Afar* of Susiana. I see traces of the latter name in the אפרסכיא and the אפרסתכיא of Ezra v. 6, and iv. 9, these compounds being probably "the Sacan Afar" and "the Afar of Sittace." *Afrunijeh*, the ancient name of Wasit, may be derived from the same source; and there is also an *Abara* in the Peutingerian Table near the site of, if not identical with, Niffer.

² In the Scythic inscription of Susa, the name of , *Susinaga*, occurs in almost every line—compare Heb. שושנא of Ezra iv. 9. The Assyrians wrote simply  *Sushan*, like the Heb. שושן.

³ Mons. Caussin de Perceval (Hist. des Arabes, tom. i. p. 13) has already remarked on the evident connexion between the Arab traditions of the conquest of Egypt by *Sheddád*, and his residence at *Awar*, the after site of Alexandria, with Manetho's account of the *Hycsos* invasion, and the building of the city of *Avaris*, so named από τινὸς ἀρχαίας θιολογίας.

under bore the name of *Σούσια*; but which was afterwards known as *Abar shakar* or the city of the *Avars*; the title of *Nishapoor*, by which it is designated at present, dating only from the time of the Sasanians.¹













It would extend too much this preliminary inquiry into the predecessors of the Semites in Babylon, if I were to pursue the ramified migrations of the Cush, or to trace in any detail the connection of the various tribes and races who gave the Greek name of Ethiopia to the country of their settlement; this name being found, as it is well known, in ancient times, in Southern Persia and in India, in Susiana, Arabia, and Abyssinia, at Colchia upon the Euxine, in Southern Syria, along the northern coasts of Africa, and even in Spain. Nor is the subject, however interesting, immediately related to the present inquiry, for the Cush or Elamites, although of a kindred stock, were not identical with the Babylonian Scyths. Of more importance is it to show the real nature of the connexion between these Scyths and the Medes, to which I have more than once alluded. From the Toldoth Beni Noah it is only fair to infer that the Japhetic races were spread very extensively over Northern Persia and Asia Minor, and that they had even penetrated into Europe, at least as early as the diffusion of the Scyths;—Slavonians, Medes, Armenians, and Greeks, are recognised in Genesis among the offshoots of this race, and two other great divisions, Tubal and Meshech, which are named in the same list,² retained their primitive seats along the range

¹ I have noticed the ancient ethnic relationship of the *Kushan* of Khorassan in a preceding note, and now add a few words regarding their later history. Under the disguised Chinese form of *Kwei-shwang* they are well known to Indian numismatists, being the particular race who, under the name of the Kadphises dynasty, occupied Afghanistan about the period of the Christian era. In the title of *Kojoulo* we have probably a trace of the ethnic name, and *Korsoko* is the very epithet which, according to Solinus, these Scyths applied to their Persian neighbours. The point, however, on which I particularly insist is, that the successive tribes of Scythians who overran Bactria and Upper India, between the Greek conquest and the era of Islam, were the aborigines of Persia, and did not come from the frontiers of China. The *Szus* of the Chinese are the *Shus* or *Shas*, who had their capital at *Σούσια* in the time of Alexander. The *Ἀσίοι* (perhaps the *Azes* of the coins and *Avas* of the Puranas) may be the *Ἀσά τῶν μεγάλων Ἰνδῶν*, the name given to Eastern Persia by the Zoroastrian Scyths, according to the legend in the Paschal Chronicle. At any rate, the *Τοχαροί*, joined with the *Asii* and *Sacrauli* by Strabo, and also mentioned by Trogus Pompeius, were settled in the Armenian mountains in the time of Sennacherib. It is only, indeed, through Persia that a Semitic alphabet, and the Semitic worship of *Nazica* or *Venus*, could have been introduced into Bactria by the Scythian invaders.

² See the names of Gomer, Madai, Javan, Tubal, Meshech, Ashkenaz, and Togarmah, Gen. x. 2, 3.


of Taurus, until a late period of the Assyrian empire.¹ The Medes, however, though sprung from a Japhetic source, must have been, I think, at a very early period merged in the overpowering masses of their Scythic neighbours; at any rate, when they first appear in history they are not to be distinguished from true Scythians, and they seem moreover to have retained all the characteristics of the family of their adoption, both as to manners, language, and religion, until at a late epoch of history they were to a certain extent re-Arianized by contact with the Persians, and perhaps by the junction of fresh colonies from the east.


The identity of the Zoroastrian Medes with the Nimrod of Scripture, has been already suggested upon strong authority; but there are even stronger arguments remaining to prove the general Scythic character of the race. In the first place, when Herodotus states that the ancient name of Media was Aria, I cannot at all admit the connexion which is generally assumed between this title and the *Arya-vartha* of India, for there is nothing whatever to show that the term Arian was used by the Greeks, either ethnically or geographically, in the sense in which we now employ it, before the time of Alexander. It seems to me far more probable that at the remote epoch to which Herodotus alludes, Aria must have been used as synonymous, or at any rate as a kindred term, with *Nimr*, and in this conjecture I am supported by a very remarkable passage of the Arab historian Massoudi, who is a most excellent authority on the subject of ancient oriental traditions. In explaining the application to the city of Babylon of the name of *Iran-Sheher*, he observes that, according to some, the true orthography should be *Arian-sheher*, which signifies in Nabathæan, "the city of Lions," and that this name of Lion designated the kings of Assyria, who bore the general title of Nimrud.² Another




¹ There is no geographical indication better established in the inscriptions of Assyria, than the location of the     and     that is, the *Tuplai* and *Muskai*, in the countries which intervened between Syria and Cappadocia.     *Kummukha*, or *Κομμαγηνή*, was a part of *Muska*; and the king of this country, who paid tribute to Tiglath Pileser II., was named *Kustaspa*, which is evidently an Arian compound. The kings of the Moschi and Commagene, who contended with Tiglath Pileser I. (about B.C. 1130), have names of a very uncertain etymology, but which cannot possibly be Semitic; they are—1st, *Kililleru*, son of *Kalilleru*, son of *Icarupin-Sihusun*; and 2ndly, *Shadilleru*, son of *Khatukhin*.



² For this important extract from Massoudi's *Tenbih*, see Notice des Manu-

beyond the *Namri* and adjoining the *Bartsa*.¹ The same habitat is assigned to the Medes, both in the annals of *Shamas Phul*, who was the son of Shalman, and in the disjointed fragments which we alone possess of the conquests of Tiglath Pileser II., who established the lower dynasty of Assyria in B.C. 747.² Under the later kings the notices of the Medes are more full and satisfactory. Sargon conducted two expeditions against them, and founded cities in their country. Media is first characterized at this period as *rukuta* or "the remote," the title being the same which is borne by Judæa, and an indication being thus afforded of the eastern and western limits of the Assyrian empire. Media is further stated in all the inscriptions of Sargon, to be a dependency of *Bikni*,³ which latter country was also famous for a valuable mineral product. When Sennacherib records his reception of tribute from Media, he especially notes that it was a country which had never been brought in subjection to Assyria by the kings his fathers; and this same testimony to Median

¹ The *Bartsa* seem to have dwelt between the *Namri* and the Medes (See Nimrud Obelisk, ls. 120 and 185). I now question whether this name can represent the Persians. The first authentic notice of the Persians is, I think, in a late inscription of Sennacherib, where the  *Partu* are associated with the Elymæans, as allies of the Chaldeans and Aramæans, in an attempt made by the son of Merodach Baladan to drive out the governor who had been placed by the Assyrian king in charge of Babylonia.

² What I particularly remark in the geographical nomenclature of Media is the constant use of *kin* or *kind*, evidently as a prefix or affix of locality; and as this same term was further extensively used among the nations of Asia Minor, I compare it with the Turkish *kend*, rather than with the Semitic .

³ If the name of this country is really to be read  *Bikni*, I can offer no possible explanation of it. In some passages, however, the last letter is , and if this form be correct, the entire name will be *Bikrat*, which nearly answers to the *Vaekeret* of the Vendidad, denoting, as I think, Khorassan. I may also observe that the stone  for which *Bikni* or *Bikrat* was celebrated (see B. M. Series, p. 24, l. 9), is almost certainly the lapis lazuli, as it applies to the enamelled bricks of Babylon and Nineveh; and this product no doubt came to Assyria from Khorassan or Bactria.

I should wish to read the word  as *Khasmat*, and thus to compare the Babylonian name for the lapis lazuli with the Egyptian *Chesbet*; but I am not sure that  has in any case the power of *Khas*. According to the ordinary power of the letters we might read either *Khamat* or *Khasat*, but I still lean to *Khasmat*. The lapis lazuli was taken to Egypt from Babylon.

independence is twice repeated by Esarhaddon.¹ Again, during the reign of the son of Esarhaddon, of whose annals we have numerous fragments, Media appears to have remained at peace with Assyria, and I put no faith therefore either in the Median history of Ctesias, nor even in the narrative of Herodotus, so far as regards the Median revolt and the first two kings Dejoces and Phraortes.²

It was Cyaxares, probably, who, at the head of a new immigration from the eastward, re-established an Arian supremacy over the Scythic Medes, and afterwards invaded Assyria with the united forces

¹ See B. M. Series, p. 24, 10, and 25, 22. The Sennacherib passage is in the 34th line of Grotefend's Cylinder.

² There is a *Daiukka* carried off from Armenia by Sargon, and placed in Hamath; but no other name occurs at all resembling *Δηϊόκης* in the annals of Sargon, although, according to the dates of Herodotus, they must have been contemporaries. It seems to me, indeed, that Herodotus has fallen into the same error in distinguishing *Δηϊόκης* and *Ἀσπράγης*, which we find in the Zend Avesta itself, where the name of "the biting snake," personifying Media,—which is given in the Vendidad in full as *Ajis daháka* (in the nom.), is abbreviated to *Daháka* alone, in the hymn to the god *Homa*: the same tradition, however, of the destruction of the snake by *Thritaon* or *Feridun*, which typifies the transfer of power from the Medes to the Persians, applying to both the names (see Journal As. 1844, p. 498). By the Dejoces of Herodotus, I understand the genuine Median nation, the *Mar* or snakes; and I further suspect that he took his *Phraortes* from the *Frawartish* of Bisitun, who was the antagonist of Darius Hystaspes, and did really gain great advantages over the Persians. I am supported, indeed, in this explanation, not only by the negative evidence of the Assyrian inscriptions, during the supposed reigns of Dejoces and Phraortes, but by the fact that Diodorus substitutes the name of Cyaxares for the Dejoces of Herodotus, and by the remarkable boast of both the rebel leaders, *Frawartish* of Media, and *Chitratakhma* of Sagartia, that they were of the race of *Huwakhshatra*, or Cyaxares, in allusion, as it would seem, to the well-known chief of some great and recent Arian immigration. The Sagartii were a race who, according to Herodotus, spoke the same language as the Achæmenian Persians; but they inhabited far to the east of the Caspian Gates, and at first sight, therefore, it seems difficult to understand how a native Sagartian could have claimed to be of the blood royal of Media. If we assume, however, that the great Arian immigration took place in the first half of the seventh century B.C., everything comes out satisfactorily. Achæmenes, the leader of the Persian division, was the fifth ancestor of Darius Hystaspes. Cyaxares, or *Huwakhshatra*, leader of a cognate division of Sagartians, was the third ancestor of Cyrus. The former turned to the south and took possession of Persis; the latter proceeded due west from Khorassan, leaving colonies along the mountains south of the Caspian, and gradually established an Arian supremacy over the Scythic Medes, an event for which we have the direct authority of Herodotus himself. All this is singularly in accordance both with the line of immigration indicated in the Vendidad, and with the traditions of Feridun at Damawend and along the Elburz. It further, too, explains a host of difficulties, not only in regard to dates, but with respect to the linguistic and religious relationship of the Medes and Persians of history.

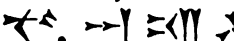
of the two races. If, indeed, we compare the statement of Herodotus, regarding the relative position of the Scyths and Medes, with the identification already established between the Namri and the Sacæ, and the undoubted evidence of the location of the former race along the mountain barrier of Assyria and Babylonia during all the later period of the Assyrian empire, we cannot help seeing that the Scythic must have been the old and predominating element in Media, and the Arian the new infusion¹; and if we further observe that in the Greek writers from the time of Alexander downwards, the Sacæ and Cadusii are so mixed up with the Northern Medes as to be absolutely undistinguishable from them, while there is the not less important fact that the second column of the tri-lingual inscriptions of the Achæmenidæ, which has hitherto for many good and sufficient reasons borne the title of Median, is now found to be written in a bona-fide Scythic dialect, and to be evidently addressed as their vernacular language to the general mass of the subjects of the Great King, as distinguished from the native Persians and the conquered Babylonians; the scheme which I have proposed for defining the ethnic affinities of the Medes really seems to afford the only explanation possible.

But there is still another corroboration of this scheme to be drawn from the Zoroastrian religion and from the native traditions of Persia. Magism, or the faith of Zoroaster, which prevailed at Babylon before the establishment of Chaldæan power,² and which was maintained in

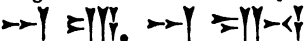





¹ It is probable, indeed, that this connexion of the Scyths with the earlier Medes is indicated by the name of their king, *Madyas*, who was the antagonist of *Cyaxares*; and it may be further observed that the building of *Agbatana* by *Dejoces* is a mere type of astronomical Magism, the seven walls being the seven concentric spheres of the heavens, each ruled by its dominant planet, and characterized by its particular colour. That a nation, moreover, which held all Asia in subjection, and was strong enough to march from Assyria to Palestine in order to attempt the conquest of Egypt, should have been suddenly annihilated at a small dinner party, is a fiction so gross that it could hardly have imposed even on the credulity of Herodotus.

² In order to explain more fully the view which I take of the primitive Zoroastrian faith, of its relationship on the one hand to Theism, before the latter merged into idolatry, and on the other to Dualism, and of the respective attribution of these three faiths in Western Asia to the Scyths, Semites, and Arians, I venture to append some further illustrations in a note. Moses of Chorene (p. 17), after quoting the Berosian Sybil and some old Greek traditions of Olympiodorus, states, as a well-known fact, that the people of the east termed *Zerwan*, *Sim* or *Shein*; and that the memory of the conflict between the three Noachide brothers, and the rise of their respective names, were preserved in the popular songs of Armenia to his day. Now *Zerwan* is, as I have said before, in all probability, the *Ziru-banis* of the inscriptions, which is the ordinary epithet of *Bel*, or *Belus*, evidently the prototype of the Semitic race. At the same time, a host of ancient traditions, both

Persia and Media up to the period of the Achæmenian supremacy, was certainly the special religion of the Scyths, and was antagonistic both

Christian and Talmudic (collected by Bochart, Phaleg. col. 204; and Stanley, Chald. Philosoph., p. 760), identified the Greek Zoroaster with Ham. I therefore think it almost certain that *Zerwan* and *Zoroaster* are antithetical names applied to the Semites and Scyths. To explain the name of Zoroaster, or *Ziru-ishtar*, I further observe that, during the conflict of the brothers, their sister *Asteria* conveyed away the children of one of them to the far east, or the borders of Bactria. (The sybil says this of *Shem*; but I understand it of Ham.) Here, then, we have the exact word  *Ziru-ishtar*, or "the seed of Asteria," for the primitive Noachide race which emigrated from Babylonia to Bactria; and we have further an admirable illustration of the Greek traditions, which connected Zoroaster, the founder of the Magian religion, on one side with Bactria, and on the other with the Hamite Nimrod in Babylonia.

Pursuing this subject, I conjecture that there was to a certain extent an interchange of knowledge and religious tenets between the Scyths and Semites before their final separation. The Zoroastrians must have imparted the elements of Magism and astronomy to the Chaldeans, while they received from them the worship of *Bel Ziru-bani*, typifying time. Hence, there is to be explained the Greek identification of Belus, the father of Ninus, with *Kρόνος*; and hence we may see the origin of the confusion of *Zerwan* with Zoroaster, as well as the reason why *Zerwan* signified "time" in Zend (no satisfactory Sanscrit etymology having been found); and how it happened that *Zerwan*, as the type of a pure theism, came to be irregularly amalgamated with dualism in the religion of the Parsees. A radical and irreconcilable distinction between theism and dualism, or the religion of *Zerwan* and the religion of Zoroaster, is perceptible in all the Greek and Armenian accounts of the Magian faith, as well as throughout the pages of the *Zendavesta*. Among later inquirers, Sheheristani alone seems to have understood this distinction in classifying the three divisions of *Magi* as *Zerwainiyyeh*, or worshippers of infinite time; *Zoroastrians*, or true magi; and *Thanauiyyeh*, or dualists; these divisions being referable to three primitive sources—Semitic theism, before the introduction of idolatry; the Scythic worship of the elements; and the Ormazdian faith of the Arian Achæmenides. See, on this really interesting subject, the second chapter of Wilson's *Parsi Religion*; note on *Zerwan*, in Brockhaus's *Vendidad*; Burnouf, in *Jour. As.*, 1845, Avril, p. 275; St. Martin's *Armenia*, vol. II. p. 477, &c.

Whilst on the subject of the famous *Zarwan akarana*, or "time without bounds," regarding whom so much has been written with really so little success, I must add an illustration from the inscriptions which, for the present, can be received only as a conjecture, but to which, nevertheless, I attach some importance. The winged and horned bulls of Assyria are, perhaps, sometimes indicated by the words  which are read phonetically by Dr. Hincks as *illip illi*, or the bull idols; but admitting even the correctness of the application of the names, I see very little for, and very much against, this reading. In one of my vocabularies,  is explained by   in the singular, and   in the plural; that is, *lamsu* and *lamassu*, to which I cannot assign any Semitic equivalent. In another passage, however, the

to the idolatry of the Semites and the Dualism of the Arians. The religion described by Herodotus (Clio. C, 131), is not that of the Oromazdian Persians, but of the Zoroastrian Scyths.¹ The early Achæmenians evidently abhorred Magism; Cambyzes on his death-bed invoked his native gods to prevent the restoration of power to

explanation of $\gg\gamma$ $\gg\gamma\gamma$ is given as \gg $\star\equiv$ that is *khalsu*, which may be derived from $\gamma\eta\eta$ (Hiph. "to make strong"), or from $\gamma\eta$ "to exult." The second term $\gg\gamma\gamma-\gamma$ is explained by $\gg\gamma\gamma$ $\equiv\gamma\gamma$ $\gg\gamma$ or $\gg\gamma\gamma$ $\equiv\gamma\gamma$ \star that is, *karan* in the singular, and *karanu* in the plural; and it seems to refer both to "time" and to a class of animals, otherwise represented by $\gg\gamma\gamma$. I conjecture, therefore, that *karan* is the Hebrew קרן , and signifies, as in Arabic, both "a horn" and "time" or "eternity," typified by horns. Is not then, this *karan* the Greek $\kappa\rho\nu\nu\varsigma$ (so written when referring to Belus)? and is not *Zerwan akarana* "Zerwan the horned," rather than merely "time without bounds"? I do not certainly suppose the Nineveh bulls to represent the image of $\gg\gamma\gamma$. $\star\gamma$ $\star\gamma$ $\gg\gamma\gamma$ or *Bel-Ziru-banit*; but they may have been emblems of strength and eternity, and have been thus named *lamassu karanu*. As a further evidence that $\gg\gamma\gamma$ $\gg\gamma\gamma-\gamma$ refers to [horned] animals, I would also draw Dr. Hincks's attention to the fact that, on the Sennacherib bulls, the title is constantly replaced by $\equiv\gamma\gamma$ $\ll\ll$. \star $\ll\equiv$ that is, I think, "beasts of the field," $\equiv\gamma$ being a determinative generally used for [horned] goats, and \star $\ll\equiv$ or $\ll-\equiv\gamma$ $\ll\equiv$ $\ll\equiv$ *saddi* or *siddi*, being a well-known word answering to the Hebrew שָׂדֵי or $\text{שָׂדֵה$.

It need not at all surprise us to find *karan*, "time," answering to the Greek $\kappa\rho\nu\nu\varsigma$, when we observe the near identity between the Babylonian $\gg\gamma\gamma$ $\equiv\gamma\gamma$ $\star\equiv$ *khuratsu*, "gold," and $\chi\rho\nu\sigma\delta\varsigma$, and a host of other examples. The connexion which I have sought to establish between the winged and horned bulls of Nineveh and Persepolis, and the *Zerwan akarana* of later times is a more important and interesting matter. I would suggest even that Darius Hystaspes gladly admitted the horned type of eternity into his palace at Persepolis, notwithstanding his hostility to the magi, because *Zerwan*, or *Ziru-banit*, was of Semitic origin, and did not form an essential part of Magism as it then stood. This intricate question, however, will not be properly understood until we ascertain the meaning of the Assyrian word which is written $\star\gamma$ $\gg\gamma\gamma$ or $\gg\gamma$ $\star\gamma$ $\gg\gamma\gamma$ or $\star\gamma$ $\gg\gamma\gamma$ $\gg\gamma\gamma$ *banit* or *panit*, and thus obtain an insight into the mythic genealogy of Belus.

¹ I cannot too much insist on the importance of this remarkable notice of Herodotus, and on the striking contrast which his description exhibits both to the religion indicated in the Achæmenian records and to the dualistic faith afterwards known to the Greeks as Magism.

the Magian Medes.¹ The usurpation of the Magian impostor involved a religious as much as a political revolution; and the first care of Darius, on regaining the crown, was to restore the temples which his predecessor had destroyed, and to re-organize the Oromazdian priesthood with their chaunts and ceremonial service.² The slaughter of the Magi, indeed, which followed on this occasion, was celebrated by the Dualistic Persians for long afterwards as a national festival, during which the proscribed race were unable to show themselves in the streets.³ It is further to be observed that Herodotus expressly includes the Magi among the tribes of Media; that Zoroaster is also generally designated by the Greeks as a Mede, or a Medo-Assyrian, or a Medo-Persian;⁴ and lastly, that the popular legends, which have almost always a foundation in truth, are unanimous in ascribing to Azerbaijan or Northern Media, the origin of the fire worship, and in regarding it as the chief seat of the Zoroastrian religion; notwithstanding that the historical records preserved in the commencing chapter of the Vendidad, distinctly show that the immigrants to whom the records belonged came from the far east,⁵ (probably from India itself,) bringing of course their peculiar doctrines with them; and notwithstanding that in this depository of the ancient national traditions, not only is Media under its own name altogether unnoticed, but there is proof perhaps afforded that at the time of their compilation, the Arians had not come geographically in contact with the Western Medes, nor had Dualism been tainted with Magism. I will

¹ Thalia, c. 65.

² See Bisitun Inscriptions, col. I. par. 14.

³ Herodotus, Thalia, c. 79. The festival is also mentioned by Ctesias and Agnathias.

⁴ Observe, too, that Dino, the father of Clitarchus, and the oldest certain writer among the Greeks on the subject of Magism, describes in the same terms the incantations with the divining rod practised by the Scythian Magians and the Medes. (Schol. Nicand. Ther. 613.) From all the fragments, indeed, of Dino that have survived (see Müller's Fragments, vol. II. p. 88), I should suppose that he treated exclusively of pure Magism, and did not take any note of the dualistic heresy. I quote Dino as the earliest Greek author on the subject, because it is doubtful whether the first Alcibiades, where the notice occurs of the *Magie of Ζωροάστρου τοῦ Ὀρομάζου*, be really Plato's.

⁵ For the native traditions regarding the fire-worship in Azerbaijan, and the birth of Zoroaster in that country, see my Memoir on the Atropatenian Ecbatana, in the Royal Geographical Society's Journal, vol. VIII.

The most westerly position that can be certainly identified in the first Fargard of the Vendidad, is *Raga* or Rhages. It is possible that *Varene*, "the squared," where *Thritaon* destroyed *Aj-dahak*, may be the capital of Media Atropatene, the *Vera* or *Βίρις* of the Greeks; but the tradition of the transfer of power from the Medes to the Persians, or the defeat of Astyages by Cyrus at Ecbatana, was more

immigration of the Cush from Susiana or Arabia to Æthiopia and the valley of the Nile really took place under Amenophis III. (Memnon), the Magian doctrines of these intruders will further account for the alterations which have often been remarked on the religious monuments of that king,¹ and for the introduction of the sun-worship into Egypt.² It is to Scythic Magism that the Greeks no doubt allude in their traditions of an early Zoroaster, who is sometimes placed as high as five thousand years before the Trojan war;³ and it is I conceive the precepts of this ancient faith, which were expounded and indexed by Hermippus, which were quoted by Plato as primæval relics, and which were in the hands of the disciples of Prodicus in the fifth century B.C.; the concurrent testimony of all writers as to the remote antiquity of the documents rendering it impossible that they can refer to a modern compilation of the contemporary Achæmenian period. Whilst Magism, as distinguished from Semitic idolatry, was thus being cultivated by all the Scythian races of high Asia, Dualism




¹ I allude of course to the introduction of the name of the god *Ammon*. See Bunsen's Egypt, p. 372.

² See Poole's *Horræ Egyptiacæ*, p. 201; and Kenrick's Egypt, vol. II. p. 245.

³ Pliny, quoting Eudoxus and Aristotle, gives the date of Zoroaster at 6000 years before the death of Plato. Hermippus, following Hermodorus Platonicus, as he is quoted by Pliny and Diogenes Laertius, fixes the date at 5000 years before the Trojan war, and Plutarch (in *Isid. et Osir.*) has the same statement. See Pliny, lib. xxx. c. 1; and Diog. Laer., i. 2. Aristotle also, in his treatise on Philosophy, maintained that the Magians were older than the Egyptians; and the 500 years before the Trojan war of Suidas is no doubt an error for 5000. The most complete collection of Magian and Zoroastrian authorities to which I have access, is in Brisson's second book, *De reg. Pers. Princip.*; but there is nothing like critique in any of the old dissertations. The main difficulty, however, in analysing Magism, lies with the Greeks themselves, who, misled by the anomalous faith which sprung up under the Achæmenians, constantly confounded Dualism with the religion of the primitive Zoroaster. If the first Alcibiades be genuine, Plato himself fell into this error. Aristotle (quoted by Diogenes Laertius, i. 8; Müller's *Frag.* vol. III. p. 53) certainly endorsed it, and his disciple Eudemus explained Magism, the faith of the Arian race, as the worship of the two principles. If Aristotle, however, really wrote the work on magic quoted by Diogenes, he maintained that the ancient Persians or Dualists were ignorant of the magic art; and the same distinction was advocated by Dino. I see, indeed, from a passage quoted from Clem. Alex. by Brisson, p. 232, that Dino positively asserted the Magian Medes to have no objects of worship but fire and water. As the astrologer Hermippus, at the same time, is one of the authorities quoted by Diogenes for the Dualism of the Magi, and is probably also the source from whence Plutarch drew his description of Zoroastrian Dualism, it must be presumed that the two millions of verses which he indexed and explained had been put together after the priesthood of the later Achæmenians had tampered with the original documents, and had engrafted on them their own Dualistic tenets.






seems to have originated among the pure Arians of *Kurukshetra*. It was perhaps, in fact, the Dualistic heresy which separated the Zend or Persian branch of the Arians from their Vedic brethren within the Sutlej, and compelled them to migrate to the westward, carrying with them, however, their native language, their Indian names of places and persons, and a very large portion of the mythic traditions of the race.¹ The course of the Arian Exodus is admirably illustrated by the successive creations of Oromazdes, described in the first chapter of the Vendidad, which furnish a complete and connected series of geographical names extending from the frontiers of India to the Caspian gates,² and it is probable that along this line the immigrants came everywhere in collision with Magian Scythas, whose names are also obscurely indicated by the different calamities and evils which

¹ Among the Vedic names in the Vendidad have been recognized *Yimo*, the son of *Vivenghan*, or *Yama* the son of *Vivaswan*, *Mithra*, and *Homa*, for मित्र and सोम or the "sun" and "moon," &c. The name of *Haraqaiti* again (*Hara'u-watish*, and Greek *Ἀραχώσια*), exactly answering to सरस्वति and applied by the primitive Arians to Candahar, seems to show that the colonists came from the true *Kurukshetra*, and the banks of the *Sarasvati* river. The proper names of men, too, both in the Vendidad, in the cuneiform inscriptions, and even in the Greek notices of Persia, are in many cases Vedic or Puranic, and can almost always be referred to a Sanscrit etymology, thus authenticating the connexion of the races. Cyrus has the same name as the progenitor of the *Kuruvas*. Cambyses was named after the province of कम्बोज. The great point of interest at present would be to discover the Vedic correspondents of *Athvi* and *Thritaon*, and, if possible, of *Sama* and his two sons, *Urvákhshaya* and *Keresáspu*, as we should thereby obtain a clue to the approximate date of the Arian Exodus, and the progress of the colonists to the westward.

² Compare the names of *Sughdu*, or Sogdiana; *Mouru*, or Merv; *Bákhdi*, or Bactria; *Nisáya*, or Nisa; *Haróyu*, or Herat; *Fehrkan*, or Hyrcania; *Haraqaiti*, or Arachosia; *Haetumat*, or Hindmand; *Ragha*, or Rhages; and *Hapta Hindu*, or the seven Indies. Among the names which are still obscure, I observe that *Vaekeret* is named *Daháko sayanem*, thereby showing that the country was inhabited by the "snake" race, or Medes: I believe it to be Western Khorassan. *Urvan*, with its epithet of *Pouru vastrám*, is very difficult; it was probably in the Elburz range. I suspect a connexion between *Chakh-ra* and *Kasv*, in Casvin, *Cuspia*, &c., *kh* in Zend representing *sv*, although the epithet *surem asavanem* would indicate Semitic inhabitants. *Verene*, the birth-place of Feridun, must be *Damawend*; and *Rañghaya* for *Rasya*, as *Danghu* for *dasyu*, must be the cuneiform   —east of Susiana (or about Isfahan), which again is probably the *Rosh* of Ezekiel.

were created by Ahriman to obstruct the Arian progress to the west.¹ It would be hazardous, without further inquiry, to attempt to define the duration of this progress, or to assign fixed dates either for its commencement or its close. The period is figured in Persian tradition as the wars of *Feridun* and *Zohák*; and the relationship of the Arians, after their establishment in Central Persia, to the great nations on their western frontier is represented by the division of the empire of *Feridun* between his three sons, *Selm*,² *Toor*, and *Erij*. A conflict of races no doubt prevailed for many centuries after the Arian establishment, and it is this conflict which forms the groundwork of all later Persian romance; *Afrasiáb*,³ king of *Túran*, being the eponym of the Scythic race, which was gradually pressed by the Arians to the westward. The true historic period does not commence till five generations before Darius Hystaspes (or about B.C. 680), when Achæmenes founded a kingdom in Persia Proper. Not long afterwards, tribes immediately cognate with the Arians of Persia, both in language and religion, must have invaded Media; and it was in consequence probably of this invasion, that the Scythians were projected on Assyria.⁴

¹ For instance, I take the *Sakiti* (translated "flies"), who annoyed the Arians in *Sughd*, to be Σάκαι or Σκόθαι; and the *Dariwika* (translated "wasps"), who contended with them at Herat, to be Δαριωκοί or Δαρεβίκοι of the Greeks. It would be a very curious subject to analyse all the Zend names, and search for their geographical application.

² I will here give the explanation of the word *Selm*, which has hitherto baffled etymologists. It is a simple transcription of the word  or  or  or  *shalamu* or *shalam*, which everywhere expresses "the west," or "the setting sun" (from , because the day is "completed"?), in Assyrian and Babylonian. It thus exactly denotes the geographical position of the Semites in regard to the Arians. In all probability, the *Salem* of Melchizedek, who was the prototype of the Semite race in Syria, comes from the same source, as also do the mountains of the Solymi, which were known even to Homer. I believe even that the name of Jerusalem signifies nothing more than "the city of the west," the sea-board of Syria having the general name of *Shalam*, from its geographical relation to Babylonia.

³ I have sometimes thought that in the first element of the name of *Afrasiáb*, we might perceive a trace of the Scythic *Afar*, and that the termination was the 'Arod of the Paschal Chronicle, the name applied by the Scyths to Inner Persia; but this is a mere conjecture.

⁴ There is some probability that the great Arian movement to the west from the Caspian Gates began at an earlier period than is here indicated; that, in fact, it was an Arian invasion which produced the Assyrian revolution of B.C. 747; for Perseus, the Arian eponym, is continually mixed up by the Greeks, as the antagonist of Sardanapalus, with this revolution, and the joint government of *Phutukh* or Belochus, who was the victim of the crisis, with Semiramis (or Atossa, the latter being certainly an Arian name), is now an established fact. See my note on Semiramis, published in the *Athenæum*, No. 1308, of 3rd June, 1854, p. 690.

It would seem, however, that *Huwakhshatra*, or Cyaxares, who led the invasion, must have adopted to a great extent the characteristic religion of the country he conquered; otherwise, we can hardly account for Median kings, whose names exhibit a pure Arian etymology, being identified with an anti-Arian Magism,¹ nor can we understand how these kings should continue to be figured in Persian romance under the Scythic eponym of *Afrasiab*.² However this may be, I conceived that the first blow which Magism received, was from the victorious career of Cyrus.³ The religion of Oromazdes and Arimanes then became the dominant faith, and the Magian priesthood were threatened with the loss of their prestige. They made a brilliant effort to recover it, by supporting the imposture of Smerdis; but the accession of Darius, and the persecution which fol-

If, however, the Arians did really thus early descend upon Assyria, they could not have maintained their position; for the Scyths held the Kurdish mountains during the four or five following reigns, to the end, in fact, of the reign of Esar Haddon; and I thus think I am justified in naming Cyaxares as the first Arian king who obtained a permanent footing in the country.

In my notes on Semiramis, published in the *Athenæum*, whilst assuming an Arian origin for *Sammuramit*, the wife of *Phulukk*, on the strength of her other name, *Atossa*, I omitted to notice the direct authority of Hellanicus to this effect. In his two fragments, 163 *a* and 163 *b*, quoted by Müller, vol. I. p. 68, *Atossa*, who, from the description, can only be the wife of *Phulukk* or Belochus, is called the queen of the Persians and the daughter of *Ariaspas*, the latter being a pure Arian name.

¹ *Huwa-khshatra*, or "self ruling," is a genuine Achæmenian compound, and there can be little doubt but that Astyages is the same name as the *Ajis-dahâka* of the *Zendavesta*, although that name was applied by the Arians to the Scyths of Media.

² The best proof that *Afrasiab* continues in Persian romance to represent the Median race, even after Arian kings had succeeded to power, is to be found in the tradition of the capture of *Afrasiab* by Kai Khosrow, at *Shis* or *Cansaka*, which exactly corresponds with the capture of Astyages by Cyrus at Ecbatana, as described by Herodotus and Ctesias.—See my *Ecbatana Mem.* p. 82, and compare *Mujmel el Tawarikh*,—*Journal Asiatique*, 3 sér. tom. xi., p. 290 and 329. There can be no doubt but that the concealment of *Afrasiab* in the reservoir of the lake at *Shiz*, described by Massoudi, and in the *Mujmel el Tawarikh* is the exact event related by Ctesias of Astyages, the hidden caverns of the lake answering to his obscure word *κρυπῆανος*.

³ If Pythagoras really studied philosophy at Babylon under Cambyzes, as is reputed by Apuleius, Jamblichus, Porphyry, &c., it was Chaldean science and not Scythic magic that he imbibed, and the name of Zoroaster is therefore used improperly. From the numerous cuneiform tablets which I have consulted, referring to sacrificial worship and to the economy of the temples, it can now be positively asserted that the Babylonian religion underwent little or no modification from the Achæmenian conquest and occupation, or even from the infusion of Greek civilization which the Macedonians afterwards introduced into the country. The knowledge which Democritus acquired at Babylon, was essentially the same that existed in the country one thousand years previously.

lowed, extinguished all their hopes. From this period then, I date the gradual absorption of Magism in Dualism; the latter creed was sufficiently impressible and expansive; it borrowed, according to Herodotus, the worship of Venus Urania from the Assyrians; that of *Tanat* or *Anaitis*, who was *Diana* rather than *Venus*, it adopted, as I have already suggested, from the Scythians. The Magi, with their literary pre-eminence, their sacred character, their hereditary science, and possessing documents of the most venerable antiquity, could thus have had little difficulty in moulding the plastic and unlettered Persians to a partial adoption of their tenets. To discriminate the respective elements of the new faith is difficult, but not impossible. The worship of *Mithra* and *Homa*, or the sun and moon, had been cherished by the Arian colonists since their departure from *Kurukhshestra*; their religious chaunts corresponded with the Vedic hymns of their brethren beyond the Sutlej. The antagonism of Oromazdes and Arimanes, or of light and darkness, was their own peculiar and independent institution. On the other hand, the origin of all things from *Zerwan* was essentially a Magian doctrine; the veneration paid to fire and water came from the same source; and the *barsam* of the Zend Avesta is the Magian divining-rod. The most important Magian modification, however, was the personification of the old heresonym of the Scythic race, and its immediate association with Oromazdes. Under the disguise of *Zarathushtra*, which was the nearest practical Arian form, *Ziru-ishtar* (or the seed of Venus) became a prophet and lawgiver, receiving inspiration from *Ahuramazda*, and reforming the national religion.¹ The pretended synchronism of this Zarathushtra with Vishtaspa clearly marks the epoch from which it was designed that reformed Magism

¹ The remarkable notices of Agathias and Ammianus with regard to Zoroaster exemplify the difficulty that well-instructed men experienced in reconciling the hybrid traditions of the Persians of the Sassanian age with authentic Greek history. Agathias in the first place mentions the double name of Zoroaster and Zarades (the latter name being probably the same as *Ziru-ishtar*, inasmuch as Hesychius explains 'Αἶα to be the Babylonian *Hera*), and he then goes on to express his doubts if the Hystaspes whom the Persians maintained to have been contemporary with the Oromazdian Zoroaster, could possibly be identical with the father of Darius. Ammianus, as I understand him, does not attempt to identify the two periods, though he gives the exact Persian description of the divine inspiration of the Zendavesta (a description, too, which is given in greater detail by Dion Chrysostom). Ammianus places the Bactrian Zoroaster, who introduced the occult Chaldean sciences, "seculis priscis;" while he takes it for granted that the Hystaspes contemporary with the Zoroaster of the Zendavesta, was the father of Darius. See Agath. (Dind.) p. 117, Ammian. Marcellin., lib. xxiii., and Dio Chrysostom, Orat. Boristh.

should date, an epoch selected doubtless out of deference to the later Achæmenian kings, who derived their royalty from Darius. It cannot be positively asserted that we have any Zend writings at present of the Achæmenian age, but I think it is highly probable that portions of the Vendidad are really of that antiquity; and I further suspect that Osthanes the Magian, who accompanied Xerxes on his western expedition, and first communicated the Persian doctrines to the Greeks,¹ was a principal agent in compiling the reformed code, which respected the ancient tenets and traditions of the Arians, while it secured the Magi in their hereditary rights and privileges.

It is of no consequence to pursue the latter phases of the Zoroastrian faith under the dominion of the Parthians, who were of the old aboriginal stock, and who revived a Scythic supremacy over the Arians; it might have been expected that Scythic Magism would again predominate, to the exclusion almost of the Dualistic element, and this I really believe to have been the case; for all the Greek and Latin contemporary writers, who acquired their knowledge of the religion of Persia from personal observation, ignore the distinction of Oromazdes and Arimanes, and describe the mere primitive elemental worship, such as it existed in Media before the Achæmenian conquest.² Under the Sassanians, when the Arian element was again and finally triumphant, and when the Scyths were confined to Georgia upon one side, and to Afghanistan and Belûchistan upon the other, the Zoroastrian faith took its present definite form; the entire

¹ See Pliny, lib. xxx., c. 2. Diog. Laert., in proœmio, p. 1, and Tatian, *Orat. contra Græcos*, p. 172. It is of course this Osthanes whom Arnobius (if I have explained the passage rightly in page 24) connects with the Armenian Zoroaster of Ctesias, using, moreover, the same epithets of Erus and Pamphylus which were employed by Plato, in describing the Proto-patriarch of Magism. It is quite certain, however, that Ctesias (whom Arnobius seems to quote) never could have confounded a priest, whose doctrines were only acquiring form and consistency in his own day, with the Scythic antagonist of Ninus.

² I would draw particular attention on this head, to the notices of Strabo with regard to the religion of the Persians, the Medes, the Armenians, and the Cappadocians, the rites and ceremonies of the latter people being described from the Greek geographer's own personal experience. In the pages of Strabo occur the names of Omanus, Anandates, and Anaitis, but nowhere is there any mention of Oromazdes and Arimanes. The Persian religion is described almost in the words of Herodotus, while among the Arians of Cappadocia the worship of fire seems to have been the predominant observance. Compare, too, the accounts of the visits of the Parthian princes to Rome, where their adoration of the elements is alone noticed. Plutarch, and writers of that age, who described Dualism, followed Eudoxus, Theopompus, and Hermippus, who certainly drew for their information on materials of the Achæmenian age.

machinery,¹ however, of the watchers of the four quarters of heaven, of the twelve bands of the fixed stars, of the seven *Amshaspands*, and the seven *Divs*, presided over by the two great spirits of light and darkness, being adopted in many instances, even to the names,² from the Semitic inhabitants of Chaldæa, who still retained all the essential parts of the ancient Babylonian mythology.

There is only one other point connected with the Scyths, to which I wish to draw attention, and that refers especially to the wars of Feridun and Zohák. In the Zend hymn to the *Homa*,³ there are four distinct national phases clearly indicated:—the first is the reign of *Jem*, the son of *Vivenghan*, which represents the Perso-Arian race, up to the period of their exodus from *Aryavartta*; the second is the age of *Athvi*, the father of Feridun, who slew Zohák or the dragon, and divided the empire among his own sons;⁴ this represents the conflict of the Arians and Scyths, during the progress of the former to the westward, and up to the period of their establishment in Central Persia; the third age is that of *Sama*, the father of *Urvakhsh* and *Gershasp*,⁵ whose conflict with “the green and venomous snake” is described with the most curious mythic detail, this period being that

¹ See Prichard's *Researches into the Physical History of Mankind*, where the myths of the Zend Avesta is epitomised from Rhode, vol. IV. p. 39. Compare also Heeren's criticism in his *Researches*, &c., Asiatic Nations, vol. II. p. 367. Rhode's I have never had an opportunity of consulting.

² Thus *Tashter*, or Jupiter, who governed the eastern quarter, I take to be *Mushteri* مشتری, the *m* and *t* being nearly the same in Pahlavi. *Venant*, or Mercury, must be the *Μόνιμος* of Julian, which Jamblichus identified with that planet. *Satevis* is a mere Pahlavi form of Saturn. *Sura* is Sirius, &c.

³ This hymn, which is probably one of the most ancient portions of the Zend Avesta, was translated and analyzed by Mons. Burnouf in the *Journal Asiatique* for 1844-45; and the Roman text and translation, extracted from this work, are given as an appendix to the *Vendidad* of Brockhaus.

⁴ Burnouf leaves the identification of *Athvi* for future explorers of the Vedas. *Thritaon* he compares with *Trīta*, but there is no apparent connexion between the names beyond their etymology. An identity not merely of name but of character would be a subject well worthy of Dr. Max Müller's research in his present labours on the Vedas.

⁵ *Gershasp* the son of *Sam*, or *Keresaspa* the son of *Sama*, Mons. Burnouf compares with *Kriṣṇa*, the son of *Saṁyama* (*Jour. Asiat.* Avril—Mai, 1845, p. 256), mentioned in the *Bhāgavat Purāṇa*; but a king of *Vāiṣāṇi*, or Bengal, could hardly have been referred to Central Persia. *Sam* was probably a native chieftain or dynasty of Seistan or Eastern Khorassan, where local traditions regarding him abound; and he must have risen into power long after the Persian Arians had been severed from their brethren on the Sutlej. The age, indeed, of Feridun and his sons is the latest point at which we can expect to trace any link of connexion between the traditions of the Vedas and Puranas and those of the Zend Avesta.

during which the Arians were engaged in constant war with the Scythio Medes, up to the time of the Achæmenian dynasty; the fourth age is that of Zoroaster, or of Dualism coalescing with Magism, from the time of Darius downwards. I have now only to refer to the second period, and I particularly notice it, because I think it possible to draw from Babylonian synchronisms an approximate date for the establishment of Arian power in Central Persia; at any rate, it will bring the remote and independent traditions of Persia and Greece into direct relationship, and thus to a certain extent lead to their mutual authentication. One of the most universal of the Greek heroic traditions is that which relates to the delivery and marriage of Andromeda, daughter of Cepheus, by Perseus, and to the inheritance by the latter of his father-in-law's empire. Now the real Greek Perseus was an Argive of the heroic age, and the scene of his exploit at the court of Cepheus was usually laid in the African or the Syrian Æthiopia;¹ yet Hellanicus and Herodotus had no doubt but that the names in question were of Oriental origin, and that they represented the transfer of power from one eastern race to another.² I take it for granted then, that Perseus, the ancestor of Achæmenes, must be the eponym of the Arian Persians, and that Cepheus represents the Scyths. It is stated, indeed, by all the most authentic of the Greek traditionists, that the ancient name of Chaldæa was Cephēnia;³ and Hellanicus, moreover, furnishes a most important notice of the actual exodus of the Cephēnes from Babylon, and their supersession by the Chaldæans,⁴ the line of emigration being marked by the name of Χώγη, which was the intervening district between Babylonia and the

¹ I presume that the general features of the Greek myth are too well known to require any references. The double location of the Court of Cepheus in Africa and Babylon, compared with the local tradition at Joppa of its being the scene of Andromeda's rescue, furnishes a good argument for the ethnic relationship of the Cushites at these three widely distant points.

² See the fragments of Hellanicus, 159 and 160 in Müller's *Fragments*, vol. I. p. 67; and Herodotus, II. 91, VI. 53 and 54; VII. 61. Herodotus, indeed, was so strongly impressed with the idea that the Argive hero and the Persian eponym were one and the same, that he actually described Xerxes as claiming kindred with the Argives through Perses, the son of Perseus and Andromeda, the latter being the daughter of Cepheus, the son of Belus. Nicol. Dam. and the Schol. to Plato both connect Achæmenes with Perses and Perseus; and Xenophon gives the same genealogy for the Persidæ, kings to whom Cyrus and Cambyses belonged. Perses and Perseus are of course the same as the *Pars* and *Pehlev* of Persian romance, but the names do not occur in the Zend Avesta.

³ See Steph. de Urbibus, in *voces Χαλδαία*; and compare Eustath. in *Iliad*. v. 1005, where Arrian is quoted as applying the name of Cephēnia to Babylon.

⁴ The passage of Hellanicus is given at length in Müller's *Fragments*, vol. I. p. 67.

mountains;¹ the identity of the Cephenees with the Scythic Medes who gave way before the Semites, according to Berossus, in the twenty-third century B.C., being thus all but demonstratively established.

Now Feridun, who was the native eponym of the Arian colonists, and who thus represents the Perseus of the Greeks, was indebted, according to the universal popular tradition (which came, however, from some other source than the Zend-Avesta), for the establishment of his power in Central Persia, to the aid which he received from a certain native champion usually called *Káva* or *Gáu*, the blacksmith of Isfahan. By some the *Kávas* were described as a line of princes to whose power Feridun succeeded; according to others it was a friendly army, led by *Kábi* of Isfahan, that placed Feridun on the throne.² That there is something more than mere fable in all this is further proved by the fact that Isfahan, the chief seat of the Kavis, is distinguished by the name of Gabæ and Gabiene, through the whole course of Greek history and geography,³ and by the still more tangible evidence that the national banner of Persia, which was lost at the time of the Arab conquest, still retained at that period its pristine designation of *Derefah-i-Kavani*, in memory of the race from whom the Persians had inherited their glory.

It is surely then a legitimate inference to identify the Cushite Scythians or Cephenees, who were driven out of Babylon by the Semites, with the *Kávas* or *Kábis* of Persian romance, and to recognize in the succession of Feridun to the power of the *Kávas*, or (which is the same thing) the transfer of sovereignty from Cepheus to Perseus, that remarkable epoch in the history of the East, which established

¹ *Choge* is the *Jukhdá* of the Arabs, or the country intervening between the lower Tigris and the mountains; it is mentioned repeatedly by the best Arabic historians and geographers, as well as by the Syrians generally, and also in two passages of the Sabeian Sidr, tom. III. pp. 83, 89. In Pliny, again, the lower Tigris cuts the Canchian plains, and it is the same district of which the name is written ܝܚܕܐ, or *Kugha*, in Ezekiel xxiii. 23.

² For these statements I rely on *Ibn Mokaffa*, *Massoudi*, *Tabari*, *Abu Rihan*, and *Ibn Athir*, who all quote traditions long anterior to Islam. The celebrity of *Gáu*, the blacksmith, is no doubt owing to Firdousi, who, as usual, personified a dynasty or race, and thus converted history into fable. I am not able, however, to explain whence the Persians of the Sassanian age drew their traditions of the *Kábis*, for the name does not occur in our present fragments of the Zend Avesta.

³ The name is found, under various disguises, in Strabo, Cornelius Nepos, Diodorus, Polybius, Dionysius, and in the historians of Alexander, and very possibly it survives in the title of جى *Jye*, which still attaches to the quarter of Isfahan on which is built the modern town of Julfa. The Achæmenian palace of Gabæ, noticed by Strabo, would be well worth the search of antiquarians in their rambles about Isfahan.

Arian dominion in Central Asia on the ruins of the Scythic power. Whether the Scythians of Isfahan really aided the Arians against the northern tribes, or whether, as I think more probable, the marriage of Perseus and Andromeda indicates a gradual amalgamation of the races, and the peaceful passage of supremacy from the one to the other, may well be left for discussion at a future period.¹ It is sufficient at present to have rescued, or to have sought to rescue, from the domain of fable, an epoch of such paramount importance as the establishment of the empire of Feridun, and to have shown that it merely depends on the determination of the interval which elapsed between the exodus of the Scyths from Babylon and their contact with the Arians at Isfahan, an interval which is figured by the eight or ten generations of *Kavas*² who preceded Feridun, to connect this epoch with the chronological date of the twenty-third century B.C., obtained from the astronomical and historical numbers of Callisthenes and Berosus.

¹ I take this opportunity of stating that the present section on "the Ant-Semitic period of Eastern history," consists of a mere series of notes taken from a far more elaborate paper on "the early Scythic population of Asia," which I commenced last year, in illustration of Mr. Norris's philological Memoir on the Scythic Inscriptions of Bisitun, and which I hope to be able to submit before long to the Royal Asiatic Society for publication, *in extenso*, in their Journal.

² Ibn Mokaffa, quoted by *Abu Rihán*, enumerates eight princes of the line of *Kávah* among the predecessors of Feridun; while Ibn Athir, confounding this family with the paternal ancestors of Feridun, raises the number to ten, and says that they were generally named *Athvian*, but had each a particular title. In reality, the *Athvian* were Arians, the *Kavas*, Scyths, and it was the fusion of the two races or families which led to the first establishment of an independent dynasty in Central Persia.

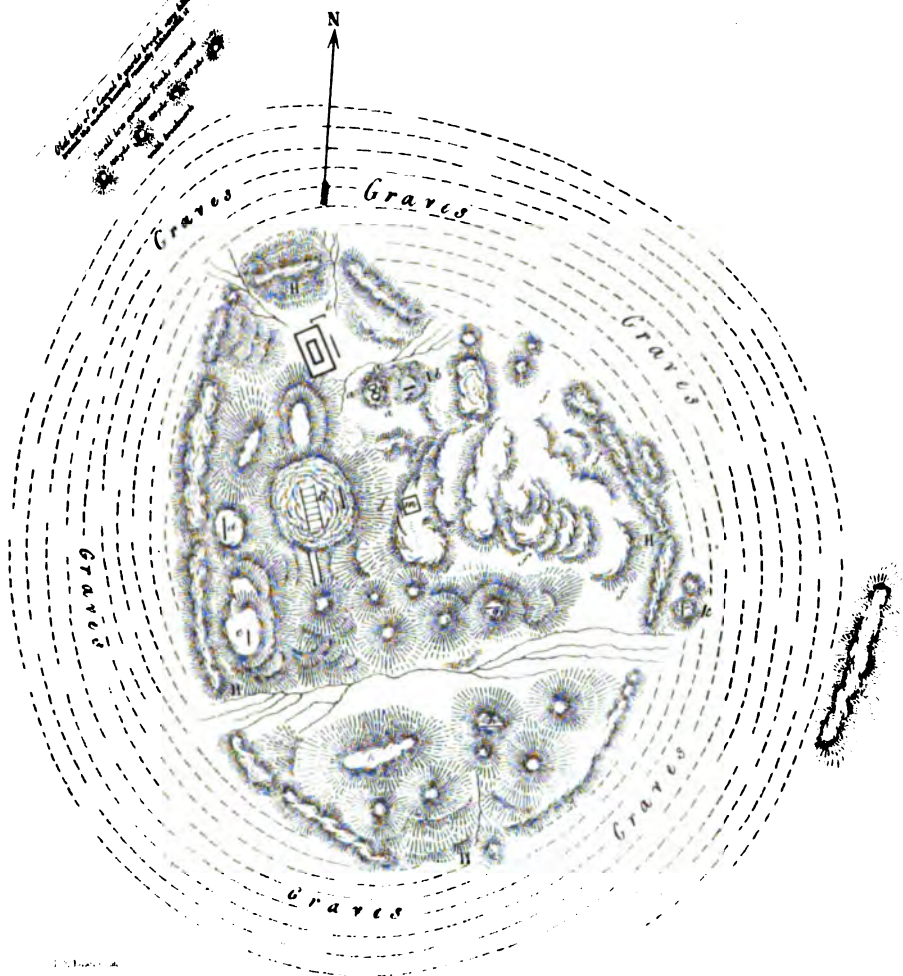
ART. III.—*Notes on the Ruins of Muqeyer.* By
J. E. TAYLOR, Esq.

[*Read 8th July, 1854.*]

MUQEYER, in Arabic, signifies "bitumined," or "covered with bitumen," its root being قَبِرَ. The Arabs of the country about Baghdad, Súk ush Shuyúkh, and Busrah, universally give the Arabic ق (Qaf) the sound of the English *g*, and *muqeyer* then with them becomes *mugeyer*. This corrupt pronunciation has led foreign travellers astray as to the real meaning of the word, which they have interpreted "overturned;" "changed," spelling the name of the ruins *Megheyer*, *Meghair*, and sometimes also *Umghair*. The reason for its present name, which is modern, is obvious to the visitor, as everywhere are to be seen large pieces of bitumen, and remains of masonry, formed by kiln burnt bricks, imbedded in the same material. The ruins are situated sixteen miles N.W. by N. from Súk ush Shuyúkh, and six miles due west from the northern end of Arjè village, on the right bank of the Euphrates. Muqeyer itself is built upon a slight elevation; the country all about it is, however, so low, that, during the annual flood of the Euphrates, the whole becomes a marsh, and the ruins themselves an island in the middle. Seven miles west of Muqeyer is a long, low range of sand hills (abounding in sand stones and pebbles), which bounds the district known by the Arabs as the Hejerra, and which terminates about eight miles N.W. of Semaweh. Between the ruins and this ridge the ground gradually descends for five miles; it then as gradually ascends for two, up to the summit of the ridge. At the other side is the valley or hollow of Abu Shahrezar. This ridge is called the Hazem. The plan will, I hope, convey a good idea of the general shape of the ruins and of the mounds composing them, together with the spots at which excavations were made. Plate 1 is a sketch of the principal building from the northern face. This is not, I must observe, exact in detail, and was only made to give an idea of the building as it at present exists. To these (and Plate 2, which is a sketch of a part of the same building) I shall refer, to elucidate my report, and to point out the different spots where the most interesting relics were discovered.

On referring to the plan, the principal ruin will be seen at the northern end; this is surrounded by low mounds. On the right hand, towards the south, are two lines of large high mounds, with another range of high mounds running to them at a right angle; these are

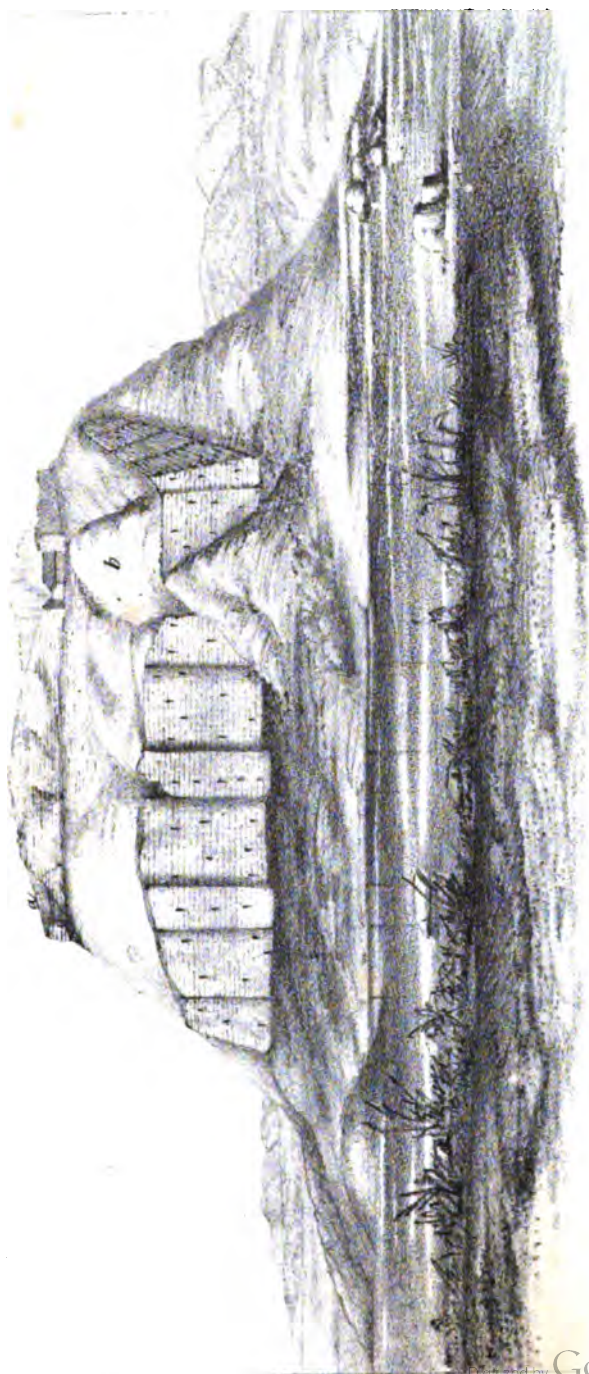
Old hat of a General & people loved him
 Small but powerful Paul, never
 single star on his breast



H H H 29.66 yards round.
 a a a Platform on which the house is built
 c. Tomb mound
 b House cleared (See Plan 3)
 d a g h k i m Pits at which excavations were made
 b Pavement at edge of Platform a 12 feet below surface of f f f comparatively open space of very low mounds

PLAIN OF MUQUEWEN RUINS.

Scale of 's of one inch to 10 yards



THE RUINS OF MUQEYER

separated from the extreme southern portion of the ruins by a large and broad ravine running completely through them from east to west. This latter is a perfect chaos of mounds, running one into the other, and forming a large confused mass. The small range of mounds to the east has a wall-like appearance, and preserves the same breadth and height throughout its length. Close to the S.E. end of the principal building is the mound from which I disinterred the house. The ruin is surrounded by broken ground and hillocks, covered with the *débris* of small vaults and coffins. About 500 yards N.W. of the mounds is the bed of a canal, but extremely indistinct in consequence of the inroads and ravages of the marsh. A mile east of Muqeyer are several mounds covered with scoræ and slag. The whole circumference of the ruins round the top of the extreme defined mounds is 2946 yards; their length, 1056 yards; and their greatest breadth 825 yards. I shall now describe the ruins in the order they appear in the plan.

The principal building is a two-storied structure, of a parallelogram shape, the longest sides being to the east and west. The second story is 16 feet 8 inches high, and its base is 18 feet from the outer edge of the first. The northern face of the first story has four buttresses, in addition to two corner ones; the western side has also the two corner ones and seven others. The entire building is perforated with numerous air-holes (as in the Kasr at Babylon), which run in a straight line right through the ruins, and the whole seems to me a solid mass of partially burnt and sun-dried bricks, coated with a wall of kiln-burnt inscribed bricks, 4 feet thick. At the eastern side is a staircase, 3 yards broad, with sides or balustrades 1 yard broad, shooting out of two supporting buttresses, 2 yards broad, which leads up to the edge of the basement of the second story. The bricks composing the coating of the first story are totally different from those of the second, in size, shape, and in the inscription; those in the first being $11\frac{1}{4}$ inches square, $2\frac{1}{2}$ inches thick, and having a small stamp $3\frac{1}{4}$ inches square; while those in the second story are 13 inches square, 3 inches thick, and bearing a stamp 8 inches long and 4 broad. Another difference is, that the bricks of the first story are imbedded in bitumen, while those of the second, with, however, the exception of its northern face, which is also imbedded in bitumen, are placed in a cement formed of lime and ashes.¹ The summit of the second story is slightly dome-shaped, and depressed at each corner; this, however, I am inclined to think is the effect of rain and wind, as on excavating,

¹ This kind of cement is still in use in these parts and is called "charooz."

I found it a solid mass of partially burnt bricks, 13 inches square and 5 inches thick. The depression at the corners is very abrupt, and at each of these corners there was a breach or opening in the wall, as if some kind of entrance had formerly existed at these points; at present, however, these parts seem as solid as any other part of the ruin. The fourth corner would, I have no doubt, have presented the same aspect, but it is now in such a total state of ruin, that the termination of the eastern wall is hardly visible, while none of the southern wall remains. A curious feature in the building is the position of the second story, which is close up to the northern end of the first story, the southern side being an inclined plane from the base of the first to the summit of the second story, and presenting a shape like the sketch below.



At a distance of about twenty yards from the base of the first story are the remains of a species of outer wall; this, however, I could only observe at the eastern side, and it was also nearly covered by the *débris* and fragments constantly accumulating from the big ruin. The first point at which I commenced excavating upon the big ruin was at the head of the staircase. The sketch (No. 2) will give some idea of the excavation here: (c b) is a breach I found in the wall, the space behind it filled with rubbish, and backed, as will be seen in the sketch, by the solid sun-dried brick mass inside. At (c) I commenced sinking the shaft, which I worked for a depth of 14 feet through the same kind of loose *débris*; I then tunnelled straight into the centre of the mound for 36 feet, and for a breadth of 8, gradually diminishing to 4 feet. At this point I desisted from any further attempts, the entire ruin seeming one solid mass. The whole excavation at the head of the staircase presented one mass of rubbish, similar to the heap at the right hand of the sketch. In clearing this rubbish away, I found nothing of any interest up to (d d), with the exception of pieces of blue enamelled bricks and large copper nails. At (d d), and also immediately below them, on the ground, I found the fragments of the barrel cylinder, which were resting for the most part on



R. E. Bowler del.

THE RUINS OF MUQAYYER

the ledge of the solid mass of masonry, commencing at *e*. These must have fallen either from the top of the building or from one of the niches (*f g*). I must note, however, that these relics were found more than 6 feet from the wall (*c*).

I first passed between two solid masses of stone masonry, about 4 feet high and 10 broad; at the other side was a passage, 6 feet broad; passing this, we came to a solid piece of masonry, which is continued up to the wall. The passage I cleared was 12 feet broad at the commencement, for 25 feet; it then narrowed to 6 for a few feet, after which it gradually narrowed to 3 feet, this last part having the appearance of an arch, broken through the centre. The mass of masonry (*e d*, plate 2) is perfectly incomprehensible; from the corner (*h*) to (*i*), the mass seems separated from the opposite piece (*k*), as both walls (inside) are perfectly smooth and distinct, and 2 inches distinctly apart from each other; from (*i*) onwards, however, the whole seems blended in one common mass of alternate thick layers of kiln-burnt and sun-dried bricks, presenting the form of a ruined arch. This is plainly seen running into the mass at the back of the breach, the bricks there being in thinner layers, and one overlapping the other, till it is reduced to a single brick. The passages seem to run entirely to the end of the ruin. Had I cleared away the heaps of rubbish to the right, I have no doubt I should have found the ruin presenting the same features as the masses I had already cleared. I found the interior of the ruin to be a solid mass, consisting of—firstly, a layer, 10 feet thick, of partially burnt bricks, 13 inches square and 5 thick; after this were layers of sun-dried bricks, diminishing in size to 6 inches square and 2 inches thick, and so firmly built, that the whole seemed a compact mass, extremely difficult to demolish; our progress here being scarcely 3 feet a day.

I mentioned before that, at each corner of the second story, there was a breach in the wall, as if some kind of entrance had formerly existed. I began excavating the S.W. corner, clearing away large masses of rubbish formed of the remains of burnt mingled with sun-dried bricks. I worked along, at a depth of 10 feet and a breadth of 6, without finding anything. I then returned, and worked a few feet north along the brick casing of the western wall; here, 6 feet below the surface, I found a perfect inscribed cylinder. This relic was in the solid masonry; it had been placed in a niche, formed by the omission of one of the bricks in the layer, and was found standing on one end. I excavated some little distance further without any success, and then relinquished this corner for the N.W. one. Here, also, I found a second cylinder, similar to the one above mentioned, but at 12

feet from the surface. At this corner I sank a shaft 21 feet deep by 12 broad. The sun-dried bricks, composing this solid mass within, were here of an amazing thickness; their size was 16 inches square and 7 inches thick. Just below the cylinder were two rough logs of wood, apparently teak, which ran across the whole breadth of the shaft. Below the base of the brick casing of the second story here, I came upon a wall 10 feet deep, built of smaller and uninscribed bricks; I dug out both ends, and pursued my work a little further without any success. I found, however, that the space between the second story and first was paved, and I presume the same arrangement was carried out for the whole breadth and length of the space between the edge of the base of second story and the edge of the top of the first.

Having thus found two cylinders in the solid masonry in two corners, I naturally concluded the same objects would be found in the two corners still remaining. I sank a shaft in each, and found two other cylinders precisely in the same position, and in the same kind of structure, one at 6 and the other at 2 feet from the surface. This is easily accounted for, when looking at the irregular surface of the ruin, which, at the S.E. corner and S. side generally, has been subject to greater ravages from rain than the other sides, owing to the greater depression of the surface towards these points.

From the irregular position of the second story, and the difference of the materials employed in the construction of each, it is, I think, probable that the first story was constructed some time antecedent to the second. In the first place, the staircase at the eastern face leads simply up to the edge of the top of the first story; I excavated right up to the base of the wall of the second, but could find no trace of a door or passage of any sort leading upwards. The bricks are also totally different in size, colour, and in the inscription¹. They are also imbedded in bitumen; those in the second story in a mixed lime and ash cement. The inclined plane leading up to the second story, without any connection with the first, is also additional ground for such a theory. Two or three old men of the pastoral tribes who congregate in winter and spring about the ruins, informed me that between forty and fifty years ago there was a kind of room or chamber at the top of the second story, and I think their assertion is borne out by the remains of glazed bricks and nails I found in excavating close up to the wall at (c), in plate 2, and which were too high up to have been the remains of the high portion of the second story wall. In addition to

¹ A few of the bricks in the second story have the same inscription as those of the first.

this, before commencing my work here, the mounds of rubbish, which completely buried the whole of this face, were higher, if anything than the top of the wall at (a). The barrel cylinder was, I have no doubt, originally placed in this upper room, or third story.

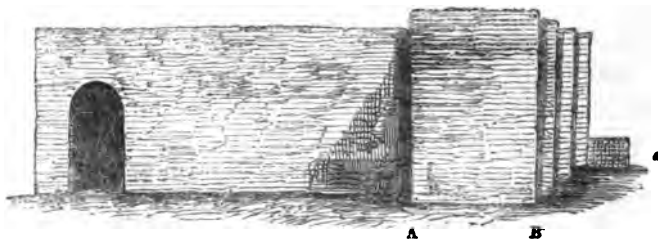
I had almost forgotten to state that, amongst the dust and rubbish on the summit of the second story, I found several small clay lamps, and fragments of fine chased pottery, which would scarcely have been found there had there not been a chamber or structure of some sort formerly existing at the top. The whole building is built of sun-dried bricks in the centre, with a thick coating of massive, partially burnt bricks, of a light red colour, with layers of reeds between them; the whole being cased by a wall of kiln-burnt bricks. The bricks composing the staircase are different in size and in the inscription from the rest, and I have pasted a small label upon each, to denote the locality I procured them from.

Close to the S.E. corner of the large ruin (45 yards off) is the low platform and Tel from which I disinterred the house. The whole is 400 yards round, and composed of a mass of sun-dried bricks, at the top of which is a pavement of kiln-burnt bricks, of which some are inscribed. I began excavating at the paved court at the N.W. corner of the mound, and worked up along the mud wall as far as the opposite brick wall, with the two drains or gutters. I then broke into the corner of the mud wall, and had not proceeded 3 feet before finding a small black stone inscribed on both sides; I entirely closed this chamber up to the arch. Passing through—the passage was entirely choked up with sand—I came into the outer court, and then following up the walls on both sides, I eventually cleared the whole building of the rubbish it contained.

The structure of this house is extremely irregular, every wall being somewhat longer or shorter than the other. The whole, together with the outer rooms, is paved throughout with kiln-burnt uninscribed bricks, imbedded in bitumen. The house, with the exception of the parts I have noted, is built of large, inscribed, burnt bricks; the outer layer imbedded in bitumen; the inner ones in mud. Many of the bricks are inscribed on their sides. Some, which are presented with the inscribed side outwards, in the two courts and arches, have a thin coating of enamel or gypsum, upon which the characters have been stamped. These are remarkably fine, and I took great pains to preserve them, and clean them thoroughly; but they were so rotten, either from age or neglect in their burning, that I found it a task of some difficulty. In the outer court I found some large irregular pieces of black stone, each of them bearing an inscrip-

tion, but in a damaged state. At the top of each is a hole, as if they had formerly been placed under a door-post. The arched ways or passages are perfect, and run through the entire thickness of the walls; the form of the arch is nearly a semicircle, the bricks being cut away towards their ends, so as to give the whole the shape required for the formation of this circular arch. Those places in the walls which I have called gutters or drains, are extremely well and finely formed, their sides coated with bitumen; they run through the entire height of the walls.

To preserve regularity and strength in the corners of the walls, the bricks are of a triangular shape, and those composing the body of the walls are of different sizes; some 13 inches square and $3\frac{1}{4}$ thick; others $11\frac{1}{4}$ by $12\frac{1}{4}$, and 3 inches thick. Those covering the sun-dried brick erection, upon which the building is raised, and of which the platform consists, are $14\frac{1}{4}$ inches square and $3\frac{1}{4}$ thick. Great quantities of charred date-wood were found all throughout this house; they were probably the remains of the rafters that supported the roof. Below is a sketch of a portion of the wall of the outer court and the adjoining buttress, with the three niches. The space from A B to the



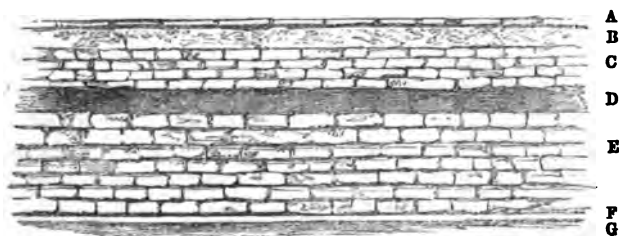
a—Step running along the whole breadth of the wall. Other side the same.

opposite buttress is paved, and about a foot above the pavement of the outer court.

With the exception of the inscribed stones and bricks already noticed, I found nothing of any interest in this ruin. In clearing out the heaps of rubbish, I got a few copper nails and pieces of date-wood rafters perfectly charred by fire. When cleared, the house, with the exception of the roof, was perfect, none of the walls having given way; and a party of my workmen eventually occupied it during the rest of my stay here. The drains or gutters already mentioned were coated thickly with bitumen, and some parts of the walls seem to have been plastered over with the same material, which made the cleaning

of the side-inscribed bricks very difficult. It may have happened that a fire destroyed this building, in which case the bitumen, used as cement for the bricks, melted by the heat, would have oozed out, and covered the walls, as I have stated. Some of the most perfect of the inscribed bricks, with the gypsum or enamel coating, were picked out from this part of the wall.

Part of the outer court, when compared with the rest of the pavement around it, presented a domed appearance. I therefore sank a shaft here, in the hope of penetrating a vault or subterranean chamber. I dug to a depth of 12 feet, and till I had reached the tenacious clay bottom, but found nothing. The construction of this building—it could scarcely have been the foundation—was sufficiently curious to deserve some explanation. At the southern end of the shaft I dug down a circular piece of wall (for about 3 feet), formed of burnt brick imbedded in bitumen; after this, for 3 feet, sun-dried brick; and then a plain wall, of burnt brick imbedded in bitumen, for 5 feet. After this was the clay bottom. All the bricks were inscribed; some on the sides, as well as the face; they were $12\frac{1}{2}$ inches by 12 inches, and $2\frac{1}{4}$ and $2\frac{1}{2}$ inches thick. At the sides of the shaft were also masses of brick-work, but they did not join on to the foundation of the side walls of the outer court. At the northern end of the shaft, after pulling up the pavement, was a layer of sand; after this a layer of sun-dried bricks; then a layer of bitumen; a layer of sun-dried bricks again; and, lastly, a pavement of kiln-burnt bricks: all these layers and the pavement extended of course to the southern end of the shaft. Below is a section of the northern end.



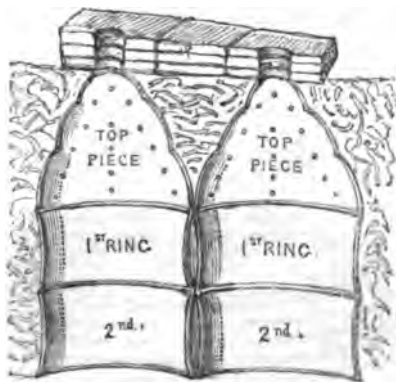
- A—Brick pavement, imbedded in bitumen.
- B—Layer of sand, 3 inches thick.
- C—Layer of sun-dried bricks, 6 inches thick.
- D—Layer of bitumen, 3 inches thick.
- E—Layer of sun-dried bricks, 18 inches thick.
- F—Brick pavement, imbedded in bitumen; bricks inscribed.
- G—Clay bottom.

At the eastern end of the platform I sank a shaft down the side of

a wall, which had the appearance of being the remnant of an arched or domed building. At a depth of 10 feet, I came to the end of this wall; digging, however, 3 feet deeper, I came upon a pavement, which I followed up for 40 feet, tunnelling through the ground, without however, any success. The bricks of this pavement are 14 inches long, $8\frac{1}{2}$ broad, and $3\frac{1}{2}$ thick; most of them have the impression of the tips of two fingers at the back; none were inscribed: the whole imbedded in bitumen. The brick wall did not go far north; it was then succeeded by a sun-dried brick wall, which ran along as far as I dug, 3 feet above, however, the level of the pavement. This excavation was at the extreme end of the platform, and considerably lower, I thought, than the foundation; it might have been formerly a sewer. Immediately above the brick wall, but at one side, I dug into square buildings, having the appearance of being the remains of rooms; the walls had, however, dwindled down to a height of 3 feet. The bricks I dug out of these chambers were painted red, and had an inscription over nearly the whole length and breadth, in a small neat character. I was not lucky enough to procure one of those bricks whole. On one portion of them was the symbol of two crescents, back to back. Some of these portions had the remains of plaster still on them, also painted red. None of the bricks composing the walls were inscribed. The whole of the above was *débris*, filling the chambers. From here, too, I procured a curious conical-shaped piece of baked clay, bearing a small inscription round the base; the whole about 5 inches long.

The next site of excavation was at the mound (c) in the plan, which, for the sake of distinction, I have called the Tomb Mound. Here I commenced, about half up at the black line, by sinking a broad shaft. This led, for 10 feet, down a piece of solid masonry, 4 feet broad and 10 deep; it then ceased. I dug for a further depth of 6 feet, and then tunnelled into the centre of the mound for 40 feet. Throughout all this work I did not succeed in finding a single thing of interest, with the exception of two double shafts, formed of rings of baked clay, 2 feet in diameter, and which subsequent experience proved to be drains for carrying off the rain-water lodging on the flat surface of the mound. For a space of 1 foot right round these shafts, and throughout their whole length, were pieces of broken pottery, the more effectually to drain the mound. Each ring was about $1\frac{1}{2}$ foot broad, one resting upon the other, and in some instances with a thin layer of bitumen between each. Above the mouth of the top ring, which is of a different shape from the others, were layers of perforated bricks, leading up to the top of the mound. Below is a section of one

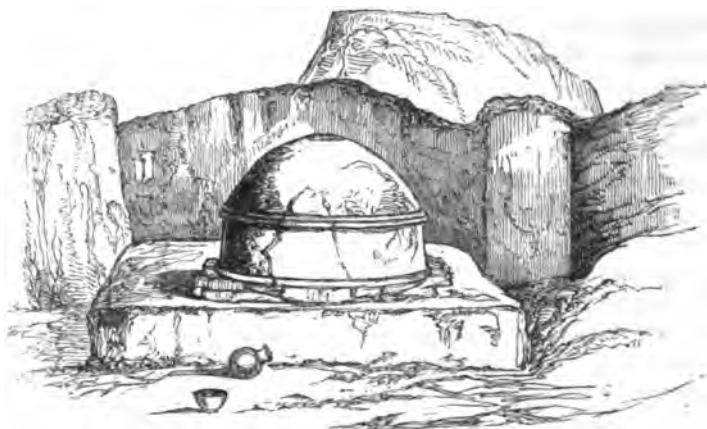
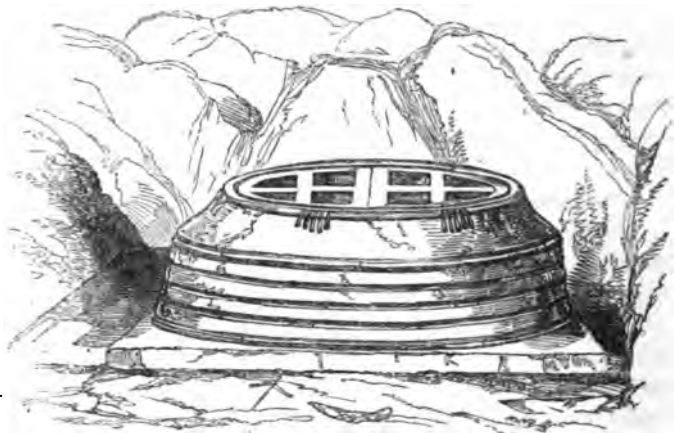
of these double shafts, which consist sometimes of forty successive rings. I procured the top piece and first ring of one whole, which I



forward with the other antiques. The top pieces and first rings are generally full of small holes.

Not having found anything as yet, I began excavating the mound at a higher level, and ran trenches 10 feet deep through the top in all directions. This mound I found to be full of coffins (if I can apply that term to the covers enclosing the remains of the dead), which were imbedded in the sun-dried bricks, of which the mound is composed. All these were at about a depth of 8 feet from the surface. Long narrow strips of masonry were found going about 4 feet into the ground, which may have formerly been used to separate the private burying grounds of different families. The whole surface of the mound, and the spaces between the masonry, are paved with single bricks; and the apertures of the numerous drains which run right through this mound in every direction, were clearly to be distinguished (although of course entirely choked up) communicating with the pavement which served to lead the rain-water and damp into them, and so effectually preserving the burial-place in a dry state. The masonry was composed of small thick bricks, bearing a small inscription in relief. Owing to this, I procured but few with a perfect legible inscription, particularly as no bitumen was used in the structure. I found a few others in good preservation, bearing a different inscription; two of the best I brought away with me. The remains of the dead I found generally disposed under baked clay covers, and in arched brick vaults. I shall describe one of each, with the articles found in them, which will suffice for the whole. I found no such things as coffins, properly so called, in the whole of this mound.

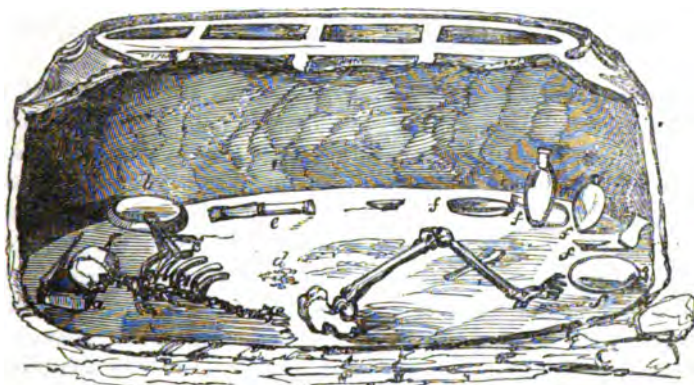
The two following sketches represent the shape and form of the covers for the dead, and the third is a sketch of a similar cover, with a piece broken out of the side, showing the position of the skeleton, and the articles found with it.



The first cover is 3 feet high, 7 feet long, and about $2\frac{1}{2}$ feet broad at the bottom. It has seven rings going completely round, and in relief, the hollow space between them filled up by a band¹ formed of dry sedge steeped in bitumen. The top of this cover was ornamented by eight shallow indentations (as seen in the sketch) and five

¹ Similar to an English hay-band used for tying trusses of hay. Strabo mentions that the people of Chaldaea used to wrap these bands, steeped in bitumen, round their date-wood pillars.

raised stripes at the head, foot, and in two places at each side of the top. The whole cover is one piece, and formed of clay burnt in a kiln. The skeletons are found resting upon a platform of sun-dried brick, on the top of which, and beneath the skeleton, is a mat exactly similar to the common ones in use to this day among the Arabs for huts and covering grain. Pieces of linen are observed about the bones, and the whole skeleton seems to have been bound with a species of thong. Remnants of stuff, which I take to be metal—for they are too heavy for cloth or linen—are also seen about the skull.



- a*—Sun-dried brick, head resting on it.
- b*—Copper bowl.
- c*—Small cylinder of meteoric stone; remains of thread through it, going round arm-bone.
- d*—Pieces of cylindrical meteoric stone.
- e*—A piece of a bamboo truncheon.
- f*—Different jars and utensils for food and water, made of burnt clay: remains of date-stones in the shallow dish.

The body is always found lying on one side, generally the left, the skull resting on a sun-dried brick, which, in some cases, is seen covered by the remnants of a tasselled cushion of tapestry; the legs drawn up in the position described in the sketch. At the left side is a copper bowl, the arm-bones of right hand resting on the edge, the finger-bones, in every instance being found inside the bowl; the left arm and hand are stretched out, and the bowl, generally speaking, lies upon the palm of the left hand. On the arm is sometimes found an inscribed cylinder of meteoric stone. I have procured them with the remains of the string still existing, and I always observed that the ends went round the wrist. In some cases I have found a second engraved (rudely) but uninscribed cylinder of sand-stone between the

feet. Just below the ribs, in many of the coffins, in the top as it were, are also several pieces of cylindrical meteoric stones, of all sizes, but uninscribed. Near the copper bowl, in this case, was a truncheon, formed of bamboo; in other cases I found a saw-fish's snout. Below this, and near the feet, are several shallow clay dishes, usually containing fish and chicken bones,¹ and the remains of date-stones. Near the dishes are big water jars, and near them a smaller kind for drinking out of, and similar to the Baghdad sherbebs of the present day. The number of these utensils differ in every case, but there are never less than three, viz.: a large clay jar for holding water, a smaller one for drinking out of, and a shallow clay dish, in addition to the usual copper bowl.

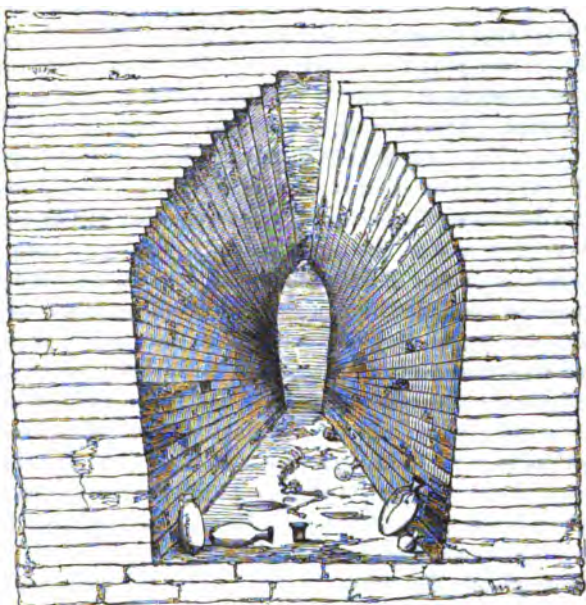
Directly on opening these covers, were I to attempt to touch the skulls or bones, they would fall into dust almost immediately; but I found, on exposing them for a few days to the air, that they became quite hard, and could be handled with impunity. The teeth in every case were beautiful, and in capital preservation. In covers to female skeletons I procured gold beads, agate beads, copper bangles, and a few trifling ornaments. In one I found a whole mass of rings² for the ear and toes, small bracelets, &c., all blended and sticking together in one mass; the remains of a piece of rag covering still exist round the whole. Different kinds of shells were frequent, and, in some, small elongated vases, filled with rings, formed by rubbing down a small kind of shell. In some of the covers, of the shape described in No. 2, were two, and in one case three, large skulls, which must have belonged to grown-up men. The cover contained three skulls and a few bones; these remains must have been previously interred in some other cemetery, and then disinterred and finally deposited here.³ Covers containing a male and female skeleton were also frequent. Receptacles for the reception of the remains of children were formed of two shallow dishes, one covering the other, although in some cases they were of the same shape (but smaller) as those in sketch No. 1.

The vaults found in the same mound were generally 5 feet high, 7 feet long at the bottom, and 5 feet at the top, with a breadth of 3 feet 7 inches. They were arched, the arch being nearly the same shape as the one at Ctesiphon; the arch was formed by each successive layer of bricks, from a distance of half way up, overlapping the other, till the whole was formed, the aperture at the top being closed by a single brick.

¹ In one I found part of the lower jaw of a boar, the big tusk still remaining.

² In this one was also a fish-hook of copper.

³ Perhaps from the fact of its being holy ground, as at Meshed and Kerbela at this day.



Above is a front view of the vault. In this one I found the skeleton disposed as usual, lying, however, on a matting formed of thin whole reeds, steeped in bitumen; one end was placed over the body, a basket of the same material was at the feet, and there were about fourteen different descriptions of clay vessels all about. There was of course the usual copper bowl (but broken), and a beautifully perfect inscribed cylinder of meteoric stone was fastened round the wrist; close to this were the remains of a gold fillet or band, formed of pure beaten metal, about an inch broad. At the extremity of the ribs numerous plain meteoric stones, four statuettes of ducks in the same material, and one in agate, besides a small cat's-eye stone. At its feet was a cylinder, in common white sand-stone (but much damaged), without an inscription.¹ The vault was perfectly free from damp, and it was in such good repair that no dust or extraneous matter had been able to get into it. In a vault of this description and size, in the same mound, I found no less than eleven skeletons, one packed on the top of the other, and many had from three to four. In these cases there were no copper bowls or cylinders, nor bricks under the heads, but always a profusion of vessels for containing water, and

¹ All the small articles found in this vault I collected in one vase, and forwarded them in that. The cylinder is with Colonel Rawlinson.

for drinking from. In some jars found near the vault above were several little clay figures, but extremely rudely executed. The floor of the vaults are paved in every case. The bricks composing them are white; towards the interior of the vault red; and they are imbedded in mud. The opening to the vault was closed or built up to the top by a double layer of bricks. About a foot below the surface, and under the pavement existing on the summit of the mound, I procured a large inscribed cone; fragments of these were very plentiful all about the graves here and in the other mounds; this was, however, the most perfect specimen. At the back of the vault described above I found, close to the foundation, a small unbaked inscribed clay tablet, and I also dug up, at two feet only below the surface, about thirty small and large fragments of the same. From being so close to the surface they were of course considerably damaged. The whole mound, which is nothing more than a burying ground, is perforated by numerous shafts of the kind already described. In burying the bodies, they were laid on a platform of sun-dried brick, and the same material was used in building round them to the top. I could not find any traces of a door or passage of any kind in it.

After completely dissecting the Tomb Mound, I made excavations in two or three places among the extreme southern Tels, and in another Tel, close to the Tomb Mound. In all these places, however, I found nothing but deep bricked graves,¹ one close to another, and filled entirely with the fragments of jars and vases. At the bottom of one of these bricked graves I dug out two coffins, at a depth of 30 feet from the surface; I procured nothing but a few beads from them. The whole of the southern mounds are full of graves; I had not time, however, to investigate them so thoroughly as I could have wished, for I have no doubt that some very interesting relics would be there discovered. All over these mounds pieces of the inscribed cones² already described were plentiful, but all damaged, the original inscriptions being nearly obliterated. In these mounds at the north, and close to the surface, I procured a large black stone, with a small but perfect inscription. The surfaces of the collective mass of mounds are generally the same; long, narrow strips of masonry running right across them, and others meeting and crossing them at right angles, the same as in the Tomb Mound. Similar masonry is observed also on the slopes; and the whole of the mounds were perforated by the drains already described. From these southern mounds I procured

¹ Ten feet long, 7 broad, and 30 to 40 deep; three and also four of them in a line, separated by a brick wall.

² Priapi?

many coffins of the shape below.¹ These, in many instances, were found with the hollow upwards, and were of course filled with earth



and the remains of the dead. In these were found the usual clay dish and jars for holding water, but no copper vessels of any kind. Ornaments of copper, as bracelets, toe and finger rings, with beads, in coffins containing female skeletons, were frequent. From a coffin in these mounds I procured a figure of a priest in copper. Scattered over them I could distinguish numerous apertures and openings leading to the double-shafted drains.

The low range of mounds that seems like a low wall running nearly round the ruins is also nothing more than a line of graves and tombs; and from all that I saw, after excavating pretty generally over the ruins, I do not think that there are any remains of habitations, for the ruin I have called a house ought more properly, I conceive, to be called a temple or washing place for the dead. The most curious relic in the shape of a building exists at the point K outside the low range of graves. Here observing some masonry on the top of a small Tel, I dug down the face of it for a depth of 30 feet, without, however, coming to the foundation; about 4 feet from the point at which I left off excavating,¹ I came upon another brick wall, running at an oblique angle to the bastion I was digging along; this wall ran apparently into the ruins. The bastion or buttress was 5 yards 20 inches long, and 2 yards 23 inches broad. The bricks composing it (imbedded in bitumen) were 13 inches long, 12 broad, and 3 thick. There is a small Tel close to it, also displaying the same species of masonry on its top. These, therefore, supposing the above to be the top of a similar building as the one I laid bare, may have formed a kind of entrance into the ruins. The bricks were inscribed on the sides only, but so ruined that I did not procure one perfect. There are numerous circular bricked wells scattered amongst the ruins, the majority in the ground about the big ruin. Here, too, are several pieces of black granite, with defaced inscriptions on them: one of the best I brought away with me; those remaining seem to bear the same. In one of

¹ All the vases and coffins I dug up were without covers of any sort.

² It must be remembered that this is the lowest point of the ruins; the long, low Tel here being only 6 feet high. I think that I must have dug below, or at all events to the level of, the surrounding descent.

the ravines, near the large ruin, is a black granite stone, which may have formed part of an altar. The other excavations that I have not particularly described, did not produce anything but a mass of broken pottery and jars, which had been buried in the bricked graves already described. I did not, however, go deep into the mounds.

Before concluding, I would draw attention to the enormous quantities of sea shells found all over the ruins, and in the graves. I have preserved one of each species, which I forward with the other articles. I did not procure a single glass vessel or fragment of glass. Copper was in abundance, probably the remains of bowls and ornaments, and was scattered about everywhere. I picked up in the Tomb Mound excavations a large spear-head, and two arrow-heads in this metal. I would call attention also to the fact of the existence of a breach in the second story, which I found on clearing away the rubbish at the end of the passage (Plate 2). This must have been made some time anterior to the ruin of the supposed third story, or upper room, from the fact of my finding the pieces of the barrel cylinder at (*d d*); the excavators of that time must also have sunk the shaft which I found filled with *débris*, but which I did not succeed in clearing. It appeared to me to be of considerable depth, but narrowing as it deepened. The inner court of the excavated house must, too, have been entered by foreigners not long after its ruin; for the stones of the paved court had been pulled up, and with these had been constructed the rude kind of fire-place common to the people of the country to this day. I have now, I believe, recounted all the discoveries and excavations at Muqeyer. I have attempted to render them as clear and intelligible as possible, although my time has been too limited for me to hope for success in dealing with subjects so new to me in every way.

Busreh, March 31st, 1854.

[N.B.—The preceding Memoir has been kindly communicated to the Society by the Authorities of the British Museum, where the articles transmitted by Mr. Taylor are deposited. Ed.]

ART. IV.—*Chronology of the Reigns of Tiglath Pileser, Sargon, Shalmanezzer, and Sennacherib, in connexion with the phenomenon seen on the Dial of Ahaz.* By J. W. BORANQUET, ESQ.

[Read the 8th July, 1854.]

No one who takes interest in the discoveries daily made in Assyria and Babylonia can fail to have read the interesting and important communications from Colonel Rawlinson, which appeared in the *Athenæum* of the 18th March and 15th April last, conveying to the public a mass of new and most valuable material towards framing a continuous chronology of the Assyrian and Babylonian empires, even from their earliest origin: establishing the fact that Semiramis, queen of Babylon, was the wife of Pul, king of Assyria; and mentioning the discovery of Belsharezar son of Nabonidus, whom he supposes to be the Belshazzar of Scripture, and the last of the kings of Babylon.

All, I presume, will be inclined to agree with Colonel Rawlinson in his conclusions with regard to the date of the reigns of Pul, Semiramis, and Tiglath Pileser; and his discoveries indeed lead to the establishment of a most important synchronism between Assyrian, Babylonian, and Jewish history at that period. But I cannot assent to the possibility of Belsharezar *son of Nabonidus*, being the king so distinctly described in Scripture as the *son* or lineal descendant of *Nebuchadnezzar*, king of Babylon. My object at present, however, is to direct attention to one portion of Colonel Rawlinson's communication in particular, viz., that which relates to the reigns of Sargon, Shalmanezzer, and Sennacherib, concerning which I am compelled to differ from him materially.

It may be thought rash, perhaps, in one who does not pretend to interpret the Assyrian inscriptions, to dispute the correctness of conclusions derived by Colonel Rawlinson from the actual reading of those inscriptions. Nevertheless, if it can be shown that his conclusions are at variance with what is written in the contemporaneous Hebrew records, which treat of the same times and the same persons, and which, taken merely as historical writings, have been preserved with more scrupulous care than any other writings in existence—and also that they are confessedly at variance with some of the facts derived from the monuments themselves—reasonable doubts may be entertained whether the evidence to be drawn from Assyrian monuments is yet so

complete, as to enable even those who interpret them to feel confidence in their own chronological deductions. I propose therefore to show—

1st. That Colonel Rawlinson's chronological arrangement of the reigns I have referred to cannot be made to harmonize, either with the contents of the Hebrew Scriptures, or with the facts deduced by him from the Assyrian monuments.

2nd. It is the particular object of this paper to draw attention to the fact, that the third year of the reign of Sennacherib is associated in history with a most remarkable astronomical phenomenon, the date of which is capable of being fixed with mathematical precision : and that the date so determined fixes the third year of Sennacherib to the twelve months beginning in the spring of B.C. 690, and ending in the spring of B.C. 689, about ten years later than the date assigned by Colonel Rawlinson, viz., B.C. 700.

The difference apparently is small between us ; yet the results are most important. His view of the reigns tends to establish the correctness of the received chronology, which involves, as I have elsewhere shown, a continuous series of discrepancies between sacred and profane history : mine to subvert some of the principal dates upon which that system is established, by lowering the whole scale of Hebrew kings to the extent of about twenty-eight years : thereby introducing a scheme of chronology resting chiefly on the authority of the Hebrew Scriptures, which Scriptures I am prepared to show contain a consistent system of dates, for a thousand years upwards from the birth of Christ, more perfect than can be drawn from the records of any heathen nation whatever, at least as they are at present understood.

In the *Athenæum* of the 18th of March, Colonel Rawlinson states that Sennacherib reigned for 22 years. "This number," he says, "I have found upon a clay tablet—and the canon, therefore, is rigidly correct in assigning the year B.C. 680 as the date of Esarhaddon's accession to the united throne of Assyria and Babylonia," (p. 343) ; and in the *Athenæum* of the 18th February, Sennacherib is said to have ascended the throne in B.C. 702, (p. 216). The dates of the commencement of the several reigns we are considering are thus placed :

Tiglath-Pileser . . .	B.C. 746	. 16 years.
Shalmanezzer . . .	730	. 9 „
Sargon	721	. 19 „
Sennacherib	702	. 22 „
Esarhaddon	680	

Now this arrangement of dates involves a complete dislocation of events as recorded in the Hebrew annals, and on the Assyrian monu-

PROPOSED. A.D. 1100-1100

	5	13	12	4	5	7

ments themselves, as may be clearly seen by reference to the accompanying chronological table. Let us first examine the correctness of his date for the reign of Sennacherib. Colonel Rawlinson appears to place too little confidence in the accuracy of the monuments, and contemporaneous Hebrew writers; and to pay too much deference to the conventional dates of the commonly received chronology, which rest, I maintain, upon no really solid foundation. He finds, for instance, in the annals of Tiglath Pileser that, in the eighth year of that king's reign, tribute was paid to him by Menahem, king of Samaria. But, instead of taking the fact as it is recorded, and from thence correcting his chronology, his system leads him to suggest "that in this passage the name of Menahem has been improperly used for that of Pekah," (p. 343), who reigned later in the list of kings.

This precious fact, however, that Menahem paid tribute to Tiglath Pileser in his eighth year, coupled with another fact, mentioned in the xvth chapter of the II. book of Kings, viz., that "Menahem gave Pul one thousand talents of silver, that his hand might be with him, to confirm the kingdom in his hand," affords the means of fixing with precision the position of the reign of Menahem, with relation to that of Pul and Tiglath Pileser—for Menahem reigned only ten years; and since eight of those ten years, at least, were contemporary with the first eight years of Tiglath Pileser, he could not have begun to reign till the close of the reign of Pul.

Let us count then the years of

Menahem . . .	10
Pekahiah . . .	2
Pekah . . .	16

as kings of Samaria:

when in the 17th year of Pekah,

Ahaz began in Jerusalem his reign of . . . 16 years, followed by

Hezekiah, who reigned 13 full years, till

the invasion of Sennacherib,

57

Thus making a period of exactly fifty-seven years from the first year of Menahem, or the last year of Pul, to the time of the invasion of Judæa by Sennacherib. If then we can ascertain the date of the last year of the reign of Pul, we shall at the same time determine the date of Sennacherib's invasion, which we know from his own annals to have taken place in his third year.

Now the noble discovery recently announced by Colonel Rawlinson, that Semiramis, the founder of Babylon, was "queen of the palace

of Phuluka," king of Nineveh—the Φαλωχ of the LXX, and Pul of the Hebrew Scriptures—guides us to the point of our search with much accuracy. For the most consistent account of Semiramis is, that she was¹

- 1st. Mistress, then wife, of the king of Assyria (Pul.)
- 2nd. That she obtained possession of the government for a few days ; imprisoned her husband, and then slew him.
- 3rd. That she married her own son.
- 4th. That she transferred her government to Babylon.
- 5th. And she reigned, according to Herodotus, in Babylon, five generations before Nitocris. (Herodotus, l. i. 184—188).

Nitocris, we are informed by Herodotus, was wife of that king, called Labynetus, who witnessed the eclipse of Thales in the year B.C. 585. Soon after the date of the eclipse Nineveh was conquered by Cyaxares, king of the Medes ; and Herodotus adds that Nitocris, seeing that the power of the Medes was increasing, and that they *had taken Nineveh*, began to fortify Babylon with dykes and walls. Nitocris then was reigning in Babylon about the year B.C. 582, or three years after the eclipse of Thales ; and if we add 155 years, or five generations according to Herodotus, to that date, we come to the year B.C. 747 for the reign of Semiramis ; that is to say, to the first year of the well-known Babylonian era which dates from Nabonassar. Semiramis, therefore, was probably the wife of Nabonassar. There is some reason also for believing that Nabonassar was her own son, for Syncellus and Cedrenus say that Nabonassar was also called Shalmanassar ; and Colonel Rawlinson has found a slab with an inscription, which may be interpreted "Shalmanezar, son of Pul." Be this, however, as it may, Semiramis was certainly reigning at Babylon about the year B.C. 747 ; and we can hardly doubt the inference drawn by Colonel Rawlinson, that the date of the transition of the government under Semiramis from Nineveh to Babylon, and of the murder of her husband Pul, was at that particular epoch. I therefore adopt Colonel Rawlinson's dates, B.C. 747 for the last year of Pul, and 746 for the first year of Tiglath Pileser.

Now if we count 57 years from the last year thus ascertained of the reign of Pul, it brings us to the year B.C. 689 or 890 for the time of Sennacherib's invasion, which is the point we were in search of. This conclusion is definite and precise. That it is also accurately correct, may be shown by three other independent modes of proof.

- 1st. The Jewish historian Demetrius, quoted by Clemens Alexan-

¹ Volney's *Recherches Nouvelles*. Part iii, p. 79.

drinus, as I have repeatedly pointed out, writing two hundred years before Christ, when the true dates of the several captivities of the people of Judah and Israel could hardly have been lost, has expressly fixed the date of the deportation of Jewish captives, or retreat from Judæa by Sennacherib, to February, B.C. 688, and his taking of the fenced cities, we may infer occupied the whole of B.C. 689, and part of the preceding year. Nebuchadnezzar, he tells us, carried away the Jews from Jerusalem 338 years and three months before the reign of Ptolemy Philopator, and Sennacherib carried away some captives 128 years and six months before that time. Ptolemy Philopator began to reign in Egypt in November, B.C. 222; counting therefore 338 years and three months from that date brings us to August, B.C. 560, for the taking of Jerusalem by Nebuchadnezzar; and 128 years and six months added again to that date, brings us to February, B.C. 688, for the carrying away of the captives by Sennacherib.

Whether we count downwards, therefore, from the reign of Pul, or upwards, from the reign of Philopator, we are led to the same date (B.C. 689) for the invasion of Sennacherib.

2nd. We have a most stringent test of the accuracy of the date, arising out of the words spoken to Hezekiah during the time when Sennacherib was taking the fenced cities of Judæa, and threatening Jerusalem. He was told that Sennacherib should not succeed in taking Jerusalem; and "this shall be a sign unto you, ye shall eat this year such things as grow of themselves, and in the second year that which springeth of the same: and in the third year sow ye and reap, and plant vineyards, and eat the fruits thereof;" thus implying two successive years of fallow at that time, as commanded by the law of Moses, in the Sabbatical year, and the year of Jubilee, which could only take place once in every fiftieth year. Now, B.C. 689-8 is a Sabbatical year in the regular septennial series, counted from three known years mentioned by Josephus; and B.C. 688-7 is also a year of Jubilee in regular series, when we place the fourteenth year of Hezekiah in B.C. 689.¹

3rd. I shall presently show that the celestial phenomenon to which I have alluded, as occurring about this time, marks to a day the time of Hezekiah's recovery from his sickness as the 11th January, B.C. 689; and the sickness, we are told, was about the time of Sennacherib's invasion.

The year B.C. 689 thus forms a cardinal point in my proposed arrangement of the kings of Assyria about this time; and I am not

¹ See my recent publication, "Sacred and Profane Chronology," on the subject of the Sabbatical year and Jubilee.

aware of any discrepancy whatever between Scripture and the monuments, which arises out of this arrangement.

On the other hand, Colonel Rawlinson's arrangement is at variance with the inscriptions, inasmuch as he places the first year of Menahem in B.C. 770, more than twenty years before the accession of Tiglath Pileser, who took tribute of him, and reigned eight years concurrently with him.

It is at variance with the Hebrew records, inasmuch as they inform us that Shalmanezzer was reigning in the sixth year of Hezekiah, and Sennacherib in his fourteenth year; that is to say, that Shalmanezzer and Sennacherib reigned within eight years of each other; whereas he places the reign of Sargon, which lasted nineteen years, between the reigns of Shalmanezzer and Sennacherib—and again, the fourteenth year of Hezekiah is made by him to fall in the reign of Sargon, instead of that of Sennacherib, and the invasion of Sennacherib to fall in the twenty-ninth year of Hezekiah, instead of his fourteenth.¹

The record of Scripture is also set at variance with the record of the monuments, inasmuch as Merodach Baladan, *son of Yagin*, of the inscriptions, is made to represent the Merodach Baladan of Scripture, who sent messengers to Hezekiah, and who is expressly described in the passage as the *son of Baladan*, probably to distinguish him from this son of Yagin, who indeed may have been his father.

Lastly, the year of Sennacherib's invasion of Judæa, according to Colonel Rawlinson, does not fall in a Sabbatical year.

These contradictions are too glaring and too numerous to leave it possible that Colonel Rawlinson's arrangement can be the true one; and I submit the following as more in accordance with facts:

Tiglath Pileser	B.C. 746	reigns 31 years.
Sargon	721	„ 19 „
Shalmanezzer	702	„ 11 „
Sennacherib	692	„ 25 „
Esarhaddon, in Babylon	680	„ 13 „
„ in Nineveh	667	

There are two points in this arrangement to which it is right that I should draw attention: 1st, That Shalmanezzer follows Sargon, instead of preceding him, as in Colonel Rawlinson's scheme. 2nd, That the reigns of Tiglath Pileser and Sargon necessarily overlap each other to the extent of six years.

With regard to the first point, I am aware that Sargon was father

¹ Dr. Hincks takes the same view as Colonel Rawlinson. See *Trans. Royal Irish Academy*; vol. xxii, p. 369; and *Journal of Sacred Literature*, No. xii.

of Sennacherib, and that Colonel Rawlinson has stated that Sargon was succeeded immediately by his son. As the reasons for this statement, however, have not been made public, and the result is so decidedly contradictory of the Hebrew annals, I venture to disregard them, in the expectation that they are in some way based upon inferences drawn from what I am here contending to be a false arrangement. With regard to the overlapping of the two reigns of Tiglath Pileser and Sargon, so far from being an objection, it affords an additional confirmation of the correctness of my arrangement, for in the Transactions of the Royal Irish Academy, vol. 22, p. 366, Dr. Hincks has pointed out a passage in Monsieur Botta's inscriptions, 74, 3, in which the predecessor of Sargon on the throne of Assyria is alluded to as still alive in the sixth year of Sargon's reign. Sargon also appears not to have styled himself king of Assyria in the early part of his reign; that is, I infer, while Tiglath Pileser was still alive and on the throne. That the two kings were reigning in joint sovereignty at this time, I conceive to be implied also by these words in the II. Chronicles, xxviii., 16: "At that time did Ahaz send unto the *kings* of Assyria to help him." In all other places the king of Assyria is spoken of. This passage implies that more than one king was then on that throne. Now Ahaz, according to the table, began to reign in the third year of Sargon's joint reign with Tiglath Pileser.

I now proceed to show, that there is an extraordinary solar phenomenon attached in history to the third year of the reign of Sennacherib, or the year of his invasion of Judæa, the date of which, owing to recent improvements in astronomical tables, is now capable of accurate determination; and which, when determined, perfectly confirms the result just arrived at, as regards the reign of Sennacherib.

We learn from the book of Isaiah, that about the time when Sennacherib first invaded Judæa, that is to say before¹ the appearance of Rabshakeh before Jerusalem which terminated the invasion, Hezekiah, king of Judah, was "sick unto death." He prayed that he might be restored to health; and the prophet was sent to him to say, in the words of our authorized version of the text: "Thus saith the Lord. Behold, I will add unto thy days fifteen years. And I will deliver this city out of the hand of the king of Assyria: and I will defend this city. And this shall be a sign unto thee from the Lord, that the Lord will do this thing that he hath spoken; Behold I will bring again the shadow of the degrees which is gone down in the sun-dial of Ahaz, ten degrees backward. *So the sun returned ten degrees, by which degrees it was gone down.*"

¹ Isaiah, xxxvii., 6.

In another place¹ we are told, with reference to this extraordinary event, that the princes of Babylon sent messengers to Jerusalem, "*to inquire of the wonder done in the land.*" From this last fact it is clear, that on the occasion of the going back of the shadow on the dial, some phenomenon also of a public and extraordinary character had been witnessed in the heavens by the people in general of the land of Judæa, the rumour of which had been carried to Babylon, either by some of the army of Sennacherib who had seen it, or by some of the Jewish captives in that army. It is not probable that the event would have been reported at Babylon had it been merely of a private nature, limited to the palace of Hezekiah, and attested by the sole evidence of a sick and dying man. We cannot doubt then that the sun itself was affected in some manner visible to the multitude of Judæa, and also to the invading army, while the particular dial of the palace was affected in the manner witnessed by the king : there was a two-fold exhibition of the phenomenon.

Various interpretations have been put upon this remarkable event in Jewish history by different writers. Costard, in his *Astronomy*, and the Abbé Halma, in his *Preliminary Discourse on Ptolemy's Hypothesis of the Planets* (p. 21), have suggested that the words were fulfilled, by Hezekiah living on to the next day, and so seeing the return of the shadow on the dial to the same point from which it had gone down on the previous day. Such, however, cannot be the explanation : for clearly the princes of Babylon would not have sent to Jerusalem to inquire concerning such an event, nor would any "wonder" have thus occurred in the land.²

Hippolitus considered that the day when the event took place was miraculously lengthened to the extent of thirty-two hours ; while Eustathius argued that the length was only twenty-two ; and some are still disposed to infer that the diurnal rotation of the earth was supernaturally reversed on the occasion. Far be it from me to deny that the course of nature may have been suspended on this occasion, if required by the circumstances : but it may be observed that we are not led by the accompanying facts to expect a miracle. The king, who was afflicted by a grievous boil, was recovered not miraculously, but by the ordinary application of a lump of figs to the spot : a process of healing used in the East to this present day. If the diurnal motion of the earth had been reversed, a visible wonder indeed would have been performed in the land of Judæa ; but equally so in all other parts of the world.

¹ II. Chronicles, xxxii. 31.

² See also Montucla's *Histoire des Mathématiques*, p. 737 ; *Sur le phénomène de la rétrogradation de l'ombre dans un cadran solaire.*

There would have been no more need to send to Jerusalem concerning it than to any other country. We may be quite certain, however, that no such interference with the ordinary course of nature did take place, because in the several eclipses of the moon observed at Babylon, both before and after this event, the times of which are accurately recorded in Ptolemy's *Almagest*, the conjunctions of the sun and moon are found to have followed their ordinary course without disturbance, which could not have been the case had the sun receded ten degrees in any one year.

An extraordinary refraction of the sun's rays has been supposed by some to have been the mode of producing the effect: and doubtless a dial might be affected in the way described by such a cause: but here again it may be observed that no celestial wonder would have been exhibited to the people of which the rumour could have travelled to Babylon.

The only mode of affecting the solar rays in the twofold manner described, in the ordinary course of nature, openly exciting on the one hand the wonder of the multitude, and on the other privately affecting a dial in the palace of the king, would have been by the occurrence of a solar eclipse.¹ Many instances are on record of the surprise and even terror in those days produced by such a phenomenon. I shall endeavour presently to point out the manner in which the shadow on a dial might be affected by an eclipse. There is strong *primâ facie* reason therefore for inferring that the phenomenon witnessed in Judæa and Jerusalem about the fourteenth year of Hezekiah was nothing more nor less than an eclipse of the sun.

This inference is strengthened by the fact that the Chaldean astronomers of that particular time were in the habit of minutely registering the times and appearances of the eclipses of the sun and moon. Isaiah, speaking of the Babylonians, in the time of the reign of Sennacherib, calls them astrologers, stargazers, and monthly prognosticators: and we have still extant in Ptolemy's *Almagest* the record of two eclipses of the moon in the years B.C. 721 and 720, observed at Babylon only thirty-two years before the fourteenth of Hezekiah. Nothing more natural, therefore, than that the Babylonian astronomers should have desired to be informed concerning the rare appearance of such an eclipse as we shall find took place at the time.

¹The idea that the appearance on Hezekiah's dial may have been the effect of an eclipse was, I believe, first suggested by Thenius, in his *Chronological Survey of the History of the Israelites*, though I have not seen the work. See Gumpach's *Zeitrechnung der Babylonier und Assyrier*, p. 134, note.

If we are justified in our inference thus far, we may proceed a step further, and infer the particular character of the eclipse, which, if eclipse there was, must then have occurred. There are but three forms of solar eclipse—total, annular, and partial. We may conclude with certainty that it was not of the awful character of a total eclipse, during which we know that instantaneous change from light to darkness takes place, producing the most appalling effect in nature. Mr. Airy observes concerning a total eclipse: "The phenomenon is one of the most terrible that man can witness; and no degree of partial eclipse gives any idea of its horror."¹ Had such a darkness taken place doubtless it would have been the chief incident dwelt upon in the description. The incident dwelt upon, however, is the extraordinary deflection of the sun's rays upon the dial, which implies an eclipse of the greatest magnitude short of total—one during which the light of the sun was not extinguished, but yet of that magnitude that the shifting of the source of light, during the progress of the moon over the sun's disc, would sensibly affect the shadow on a dial. It was not therefore total. That it was not an annular eclipse, we may also infer from the fact, that the shadow was deflected, not horizontally, but in a vertical direction. This will appear from a consideration of the original passage, in which we shall find no such word as "dial" in the Hebrew. The motion of the shadow was exhibited upon steps. The literal translation of the passage runs thus: "Behold I will bring back the *shadow of the steps* which it shall have gone down on the steps of Ahaz with the sun, backwards ten steps. And the sun shall be turned back ten steps, on the steps which it shall have gone down." The Targum of Jonathan on the passage, the oldest paraphrase, calls it the *ascent* (or steps) of Ahaz; and Glycas, a Byzantine writer, says, that the tradition was, that Ahaz had formed a certain instrument in the shape of steps to mark the hour of the day. The expression "shadow of the steps," or "shadow of the degrees," as it is commonly translated, cannot be mistaken; for no shadow could be thrown by degrees of a graduated scale unless raised in the form of steps. The Hebrew word *Maaloth* also implies "ascent," as translated in the Targum.

We thus learn that it was upon a flight of steps that the motion of the sun's shadow was seen to go back on this occasion; and here we may remark upon the particular propriety of the sign, as given in answer to the inquiry: "What shall be the sign that I shall *go up* into the house of the Lord?" that is, that I shall ascend the steps of the

¹ Lecture on the eclipse of Thales.

temple. The answer is : " I will bring again the shadow of the steps which it is *gone down*, ten steps backward ;" that is, the shadow shall ascend ten steps. There would be no connection between these words and the inquiry if understood as referring merely to degrees on a scale. But the only use of steps would appear to be to mark the vertical motion of the sun ; and the use of such an instrument, if indeed it was more than an ordinary flight of stairs, we may infer, would have been merely to mark the meridional altitude of the sun from day to day, or the dip at noon day. Now the different phases of an annular eclipse would produce no sensible effect in a vertical direction on a flight of steps. The eclipse, therefore, could neither have been total, nor annular, but must have been a very large partial eclipse ; and as the effect was to cause the shadow to "go down" the steps, the eclipse must have been upon the upper limb.

These indications of the character of the eclipse to be looked for in the year B.C. 689, are sufficiently particular to distinguish it from any other solar eclipse within many years of that time. So large a partial eclipse as this must have been, of the upper limb of the sun, visible at any particular spot on the earth, is an event of rare occurrence. There is, however, another peculiar mark attached to it, which, coupled with those mentioned, would distinguish it from any other eclipse which could have occurred within many hundred years, viz., the time must have been very close upon noon-day. We are told that the shadow went back ten steps, by which it had gone down on the steps of Ahaz. The sun, or the shadow, had, therefore, descended ten steps from its extreme altitude, and was brought back again to its meridional altitude for the day.

We look, therefore, for a large partial solar eclipse, on the upper limb, visible at Jerusalem, about twelve o'clock, on some day in the year B.C. 689.

Now by the kindness of the Astronomer Royal, whom I do not intend to implicate in any way with my view of the question, I am enabled to show, that an eclipse of the sun, corresponding in every particular with what is required, excepting only the exact time of day, occurred in the year B.C. 689 : and, with regard to the time, it is an extremely interesting fact, that astronomers are at this moment engaged in calculations which will probably alter the computed time of this particular eclipse to the extent of about half an hour, which would bring the computed time within about fifteen minutes of the time required by the history.

Mr. Airy writes : " The eclipse of B.C. 689, January 11, was annular, and the annulus was rather broad. The sun's apparent diameter

was 16' 13", and the moon's (in the neighbourhood of Jerusalem) was 15' 13".

"The course of the central line of shadow, with Greenwich Elements, is defined by the following points :

Longitude E.	Latitude N.	Apparent time at the place.
21° 43'	35° 3'	21 ^h 36 ^m
30 12	34 52	22 30
37 8	36 37	23 18
44 10	40 11	0 5
53 26	46 37	1 3

"It passes through Issus. I have not computed the breadth of the annular zone upon the earth, but I can see that the eclipse would be as nearly as possible just annular at Jerusalem, perhaps sensibly annular, perhaps not quite annular.

"With variation of Elements (using the word in the technical sense of my paper) the course is

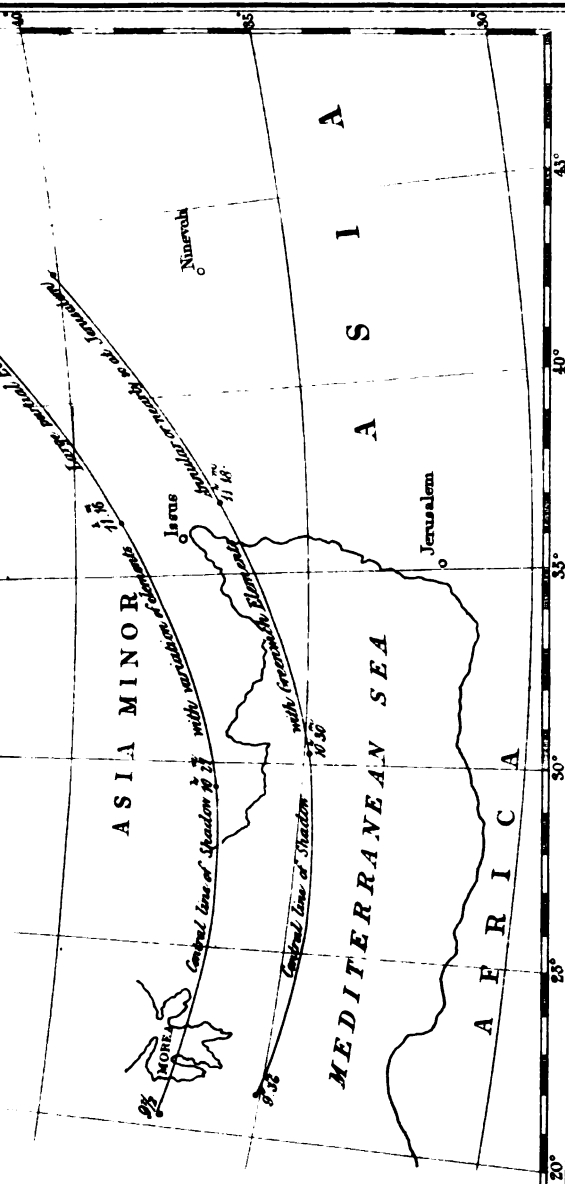
Longitude E.	Latitude N.	Apparent time at the place.
20° 18'	37° 14'	21 ^h 30 ^m
29 23	36 51	22 27
36 40	38 37	23 16
44 1	42 24	0 5
54 12	49 28	1 6

"In this, which is the more probable course, the eclipse would not be annular at Jerusalem, but it would be a very large eclipse."

Thus we find that there was an eclipse of the sun in the year B.C. 689, visible at Jerusalem, about three months before the commencement of the Jewish year, (from which point the years of the reign of the kings of Judah were always counted), which was either annular or partial on the upper limb, and that the computed time of central conjunction at Jerusalem is about ten minutes past eleven o'clock, which is much too early; since the sun's motion in altitude at that time of day would have been too rapid for counteraction by the deflection of its rays in a direction opposite to its motion by any eclipse which could take place.

Mr. Adams, however, writes to me that calculations are now being carried on by himself and Professor Hansen, the effect of which, as far as they have proceeded, is to diminish the longitude of the moon in the year B.C. 689 nearly 930", making an eclipse at that time nearly

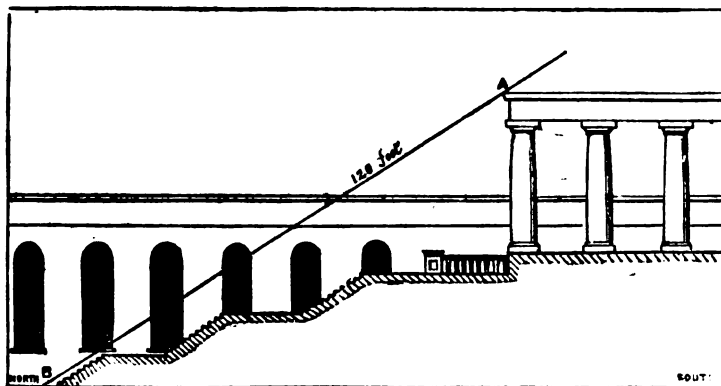
Eclipse of the Sun 11th Jan. B.C. 689
 in the 13th Year of Hezekiah, about
 3 Months before the beginning of His
 14th Year, about the end of the 3rd
 Year of Sennacherib.



half an hour later. This is coming very near the extent of correction required. There is still about another quarter of an hour required to bring the historical and computed time to coincide; and I cannot but feel sanguine that ultimate agreement will be produced, either by correction of my view of the exact time required, or by correction of the elements of the computation.

It now remains for me to point out the mode in which the appearance of the going down and return upwards of the shadow caused by the eclipse could have been exhibited to Hezekiah on the "steps of Ahaz." I shall endeavour to show that the phenomenon may have been witnessed, either in open day on the ordinary steps of the palace, or on some horological instrument in the private apartment of the king.

The "city of David," and the "house of David," the palace where Hezekiah probably dwelt, we know was situated on a hill at the south of Jerusalem, ascended by stairs from the lower city, called "the stairs (*maaloth*) of the city of David." (Neh. xii. 37.) We may reasonably assume also that there were steps leading up to the entrance of the palace, and also within the great court, perhaps somewhat thus :



Let us suppose the steps to have sloped upwards from north to south, at an inclination of from 32° to 34° , say at 32° , or a rise of seven inches in a foot, the ordinary inclination of a flight of steps; and let us suppose a line drawn from the top of the building at A to the pavement beyond the lowest step at B, to be a length of 120 feet, inclined at an angle of 35° .

We will next observe the altitude of the sun at Jerusalem for thirty days before and after the winter solstice, and for an hour before and after noon-day on the 11th of January, B.C. 689, from data for which I am also indebted to the kindness of Mr. Airy :

"The shortest day in B.C. 690 was December 28, (Julian). The meridian altitude of the sun at Jerusalem on that day was $34^{\circ} 25'$

ten days later (or earlier) $34 \quad 27$

twenty days later (do.) $35 \quad 53$

thirty days later (do.) $37 \quad 45$

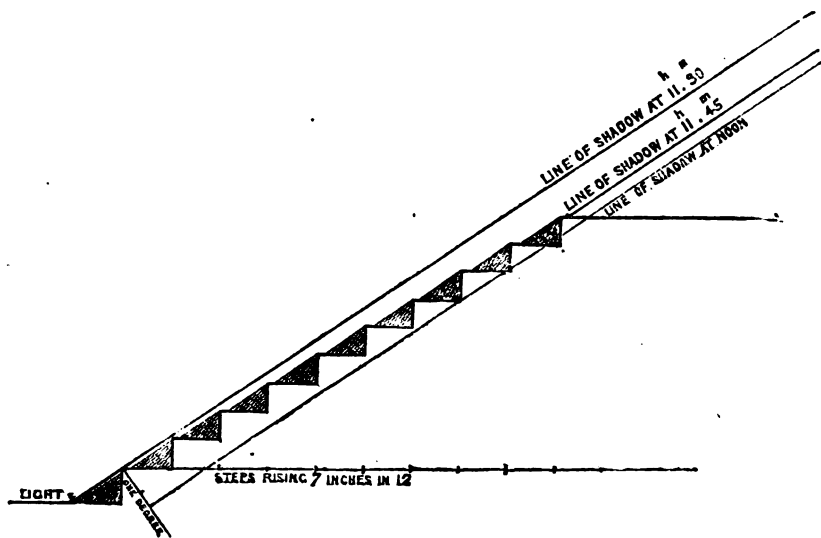
The altitude of the sun on the 11th of January, at each ten minutes before and after 12 o'clock :

11 ^h	0 ^m	. .	$33^{\circ} 20'$	. .	1 ^h	0 ^m
11	10	. .	$33 \quad 54$	. .	12	50
11	20	. .	$34 \quad 22$	. .	12	40
11	30	. .	$34 \quad 43$	. .	12	30
11	40	. .	$34 \quad 59$	. .	12	20
11	50	. .	$35 \quad 8$	. .	12	10
Noon		. .	$35 \quad 11$	. .	Noon.	

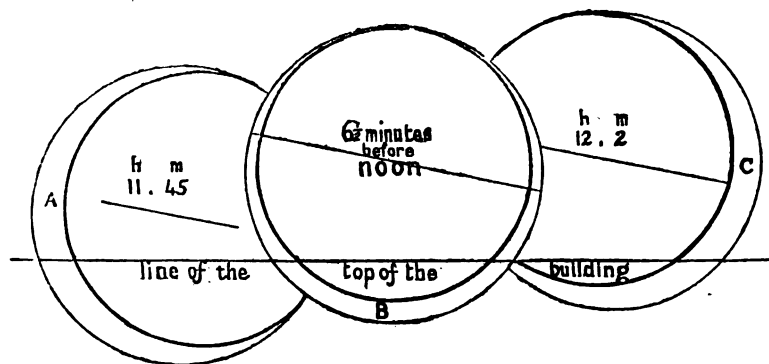
On B.C. 689, morning of 11th January, the moon's relative hourly motion in declination was $5' 44''$ northward ; and that in right ascension was $29' 33''$ eastward. These are geocentric motions. For the apparent motion at Jerusalem, the motion in declination will be little altered : that in right ascension will be diminished by nearly $\frac{1}{3}$ part, or about $\frac{1}{4}$."

Now, as the sun's semidiameter was $16' 13''$, and the centre of the sun had risen on the 11th January to an altitude of $34^{\circ} 43'$, at 30 minutes past 11 o'clock, the upper rim of the sun's disc at that time would have reached the altitude of $34^{\circ} 59' 13''$, or just below the top of the building A, viewed from the point B, casting the shadow of the building on the pavement just beyond the lowest step. In the course of half an hour the centre of the sun would have slowly risen to its extreme altitude for the day, $35^{\circ} 11'$, the upper rim of the disc to $35^{\circ} 27' 13''$, and the lower to $34^{\circ} 54' 47''$, or $5' 13''$ below the top of the building, casting a line of shadow on the steps at an angle with the line A B of $27' 13''$, or rather less than half a degree ; and as 120 feet is the radius of a circle which gives two feet to a degree, it is clear that light would be spread over a space of somewhat less than one foot inwards from the lowest step ; thus illuminating the whole of the lower flight of ten steps, and a portion of the first landing ; the top of each step being in light, and each step also casting its own shadow on the step below, as expressed by the words, "shadow of the steps," as delineated on the opposite page.

We will now suppose the king to have been watching from a side chamber in the court the gradual movement of the shadow up the steps, for fifteen minutes, from 11^h 30^m ; during which it would have



passed over about $22'$, bringing the shadow above the tenth step at $11^h 45^m$. During these fifteen minutes it is obvious that the upward motion of the sun would counteract any motion of the point of light in the opposite direction, which could be caused by an eclipse: from which we learn that it is at near noon-day alone, on the particular day, that the shadow could have been affected by such an event: at a quarter before 12 o'clock, however, on that day, the sun's motion in altitude became greatly diminished, rising only about $6'$ in fifteen minutes. At about this time, then, (being a quarter of an hour later than astronomers have yet found by computation), I consider the centre of the moon to have advanced over the sun's disc to the position represented in figure A, producing a partial eclipse.



The rays of light proceeding from the upper part of the crescent would now tip with light the tenth or top step, and the progress of the shadow would there be arrested. In the course of about $8\frac{1}{2}$ minutes more, or at $6\frac{1}{2}$ minutes before noon, the eclipse would have assumed the form B. The two divided rims of light on each side would cast no sensible shadow, and the mass of light producing shadow would proceed from a point somewhat above B, from about the level of the line of the building, causing the shadow to descend to the lowest step.

Let us now suppose the prophet to have been in conversation with the king, during the preceding ten minutes, delivering the divine message, informing him that he shall recover from his sickness and yet live fifteen years. The king exclaims, "What shall be the sign," &c. "And Isaiah said, This sign shalt thou have of the Lord, that the Lord will do the thing that he hath spoken." (I follow Walton's translation). "The shadow hath departed ten steps, if it should return ten steps?" or, following the usual construction of the passage, speaking when the shadow had just begun to go down, "Shall the shadow go forward ten steps, or shall it go back ten steps?" Either effect would be sufficiently striking to a daily observer of the mid-day shadows, considering the rapidity of the movement, compared with the ordinary rate of motion of the shadow about noon-day. The king, however, having watched the shadow to the lowest step, exclaims, "It is a light thing for the shadow to go down ten steps: nay, but let the shadow return backward ten steps. And Isaiah the prophet (quite as ignorant as the king of the natural cause of the event) cried unto the Lord; and he brought back the shadow ten steps backward, by which it had gone down on the steps of Abaz." The third position of the eclipse now gradually comes on, and the shadow returns to the upper step from which it had gone down, and continues there for more than ten minutes.

Such must have been the effect produced upon any conformation of building and steps such as I have described, in any part of Jerusalem, on the 11th January, B.C. 689, provided the time of the eclipse at that period can be placed somewhat later than the time computed; and such I believe to be the nature of what was actually witnessed by Hezekiah. The duration of the phenomenon was sufficient to have left an impression on the king's mind, free from all doubt, as to the marvel that had occurred; and the deep conviction must have followed, that the superhuman intelligence which alone, in those days, could have foreseen the event, could indeed foresee, and make good the promise conveyed to him, that he should yet survive for fifteen years.

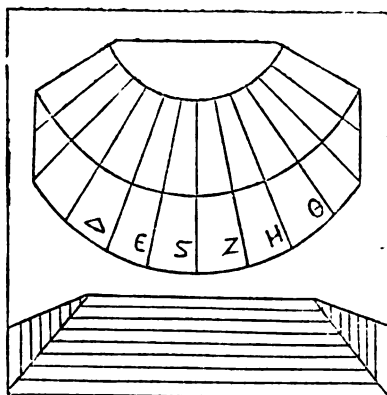
It may be further observed, that if this phenomenon was really

witnessed on an ordinary flight of palace steps, at an inclination of not more than 34° , it is probably the only occasion on which it could have been witnessed in Jerusalem. A large partial eclipse of the particular form required is of sufficiently rare occurrence at any one spot, as we have already observed, and such an eclipse within a few minutes of noon-day a still less frequent occurrence ; but if, in addition to these two requirements, we have to combine the further condition, that it shall occur at a period of the year when the sun's altitude is sufficiently near 34° to produce the effect, which could only be the case at Jerusalem within about twenty days on either side the winter solstice, we have a combination of conditions which we may safely say has not occurred a second time at Jerusalem, in any of the solar eclipses since visible at that spot. Yet such a combination appears to be required by the history, and also to have taken place.

But perhaps it may be thought improbable that this scene should have occurred at all in the open court of the palace. The king was sick, and at the point of death. It is said that he turned his face to the wall, probably turning on his couch, from which he was unable to move ; and the dial of Ahaz may have been, as the tradition has it, an instrument invented by that king. If so, it is quite clear that the same phenomenon may have been witnessed on a minute scale, in a chamber, on a small instrument, with the same precision as we have seen it might have been witnessed on the palace steps, on a large scale.

In the absence of clocks, it was of extreme importance to the ancients, to be able to fix with exactness some one point of time in the day ; and, for this purpose, they were in the habit of carefully observing the turn of the sun's shadow at noon-day, the only time which could be marked with precision by the shadow. This daily habit of observation must have made them perfectly cognizant of the rate of motion of the shadow about that hour, and extremely sensitive of the slightest variations in the motion from day to day. We know that they had invented various instruments for the purpose of marking the shadows. There was the Pole and Gnomon, mentioned by Herodotus, which marked the progress of the shadow throughout the day, the Pole being of the form of a hollow bowl or hemisphere. The Obelisk was no doubt employed to mark the length of the sun's shadow from hour to hour. The Heliotropion, as the name expresses, was used to mark the turn of the shadow at the solstices ; but the particular instrument invented by Ahaz was none of these ; because we know that his instrument was in the form of steps—and nothing could be better adapted for marking with precision the vertical movement or dip of the sun's shadow at noon.

Now a flight of steps must either be in the form of an inclined plane (the ascent of Ahaz), or circular as in the form of a cone, or a combination of inclined planes, as a pyramid. Amongst the horological instruments described by Vitruvius, we find the Cone, invented by Dionysiodorus; and the scholiast on a passage of Ptolemy's Geography describes the Sciotheron, or shadow-taker, in the form of a pyramid of four triangles, by which the meridian might be ascertained at any time or place. The pyramids of Egypt, as Herodotus tells us, were formed in steps called *Βωμίδας*, or little altars (perhaps to the sun), and we have an instance of a graduated pyramid in the British Museum, used in connexion with a dial. The dial is placed on a truncated pyramid, with seven steps of about three-quarters of an inch wide each, clearly intended for the purpose of marking the mid-day shadows, somewhat in this form :

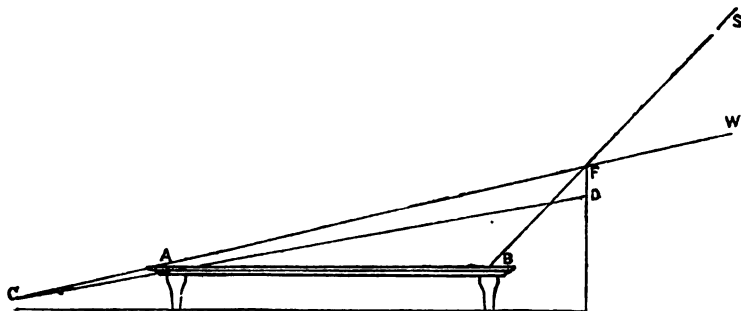


DIAL OF THE ROMAN PERIOD, FROM ALEXANDRIA.

In the observatory at Pekin, when visited by Du Halde, an instrument, which may be called a Heliotropion of a simple form, was found, which is thus described : "They had contrived" (says P. le Comte), a Guomon in a low room." . . . "The slit which the ray of the sun came through, is about eight feet above the floor, is horizontal, and formed by two pieces of copper borne up in the air, which, by turning, may be set nearer or farther from each other, to enlarge or contract the aperture. Lower is a table with a brass plate in the middle, on which was drawn a meridian line 15 feet long, divided by transverse lines, which were neither finished nor very exact. There are some small channels round the table, for holding water, so as to level it."¹ Here

¹ Du Halde's "China," fol., 1741, vol. ii., p. 131.

is an exact description of a room, such as we may suppose to have been the dial-room of Ahaz, into which it may have been the daily habit of the king to retire for repose during the heat of the middle of the day.



Now, if A B represent the table placed in the line of the meridian, and F the aperture in the chamber above described, W the position of the sun at the winter solstice, and S its position at the summer solstice, it is clear that the shadow cast from the point F on the table would travel backwards and forwards between A and B, from winter to summer, and summer to winter. The defect, however, in the instrument is, the want of precision of the line of shadow on the table, caused by penumbra, preventing any very accurate observation of the position of the shadow at any particular moment. This defect would be in great measure cured by the substitution of the inclined plane C D, in place of the table, in the form of steps. By this simple improvement, each step becomes a second gnomon, defining the limits of shadow much more precisely, and enabling observations to be made with much greater accuracy. Such, I suggest, may have been the nature of the invention of Ahaz ; or it may have been a small pyramidal flight of steps, moveable on the table, merely for observing the moment of the sun's dip at noon, like the common sextant. It is in vain to attempt to define the exact mode in which the phenomenon described was witnessed ; but there is no difficulty in conceiving a mode in which it may have been witnessed by the king without moving from his couch.

I have now endeavoured to point out, how recently-discovered Assyrian inscriptions combine with the records of ancient history in determining the time of Sennacherib's invasion of Jerusalem to the year B.C. 689 ; how, therefore, we must look for a peculiar celestial phenomenon as having taken place in the beginning of that year ;

and how it is found by pure science of astronomy that a phenomenon of the exact nature required, excepting only one particular, actually then took place. It only remains for astronomers to determine the exact time of central conjunction of sun and moon on the 11th of January in that year. For my own part, I have the greatest faith in the accuracy of the deductions to be drawn from the words of the sacred record, with regard to the time and form of the eclipse; and I venture to anticipate that astronomy will again be indebted to history for a test of her calculations, accepting from history the exact position of the shadow during the eclipse of B.C. 689, as on a recent occasion her calculations have been modified with a view to the historical position of the shadow during the eclipse witnessed by Agathocles in the year B.C. 310. Meanwhile, until the decisive authority of this exalted science shall be pronounced to the contrary, we cannot fail to recognize the striking connection between the event and the historical description; and to place the end of the third year of Sennacherib and the end of the thirteenth and beginning of the fourteenth year of Hezekiah in the year B.C. 689.

ART. V.—*Topography of Nineveh, illustrative of the Maps of the chief cities of Assyria; and the general Geography of the country intermediate between the Tigris and the Upper Zab.*
By FELIX JONES, Commander Indian Navy, and Surveyor in Mesopotamia.

[Read 2nd July, 1853.]

WITHIN the last decade of years, the museums of France and England have been enriched by numerous monuments of Assyrian art, that clearly show the soil from which they were obtained was peopled by a race who, to its warlike habits, added many of the refinements of civilized life. The researches of Botta and Layard—so far as lapidary tablets are capable of conveying the economy of a nation—have familiarised us in some measure with the public rites and ceremonies of the Assyrians, as well as given an insight into their more domestic concerns; and the pens of these travellers have further elucidated the subject in a manner of which the praise of the public is guarantee to the ability displayed, while the monuments themselves, as patents of their energy, remain in the capitals of Europe, until, in the course of time, they share in the fate of their Assyrian predecessors. Profoundly indifferent, however, to such an event, our savans are in the mean time labouring to unravel the mystic characters engraved on the records so lately revealed to us; and such is the progress made, that we may shortly expect to be as cognizant of the deeds of the “stout-hearted king and the glory of his high looks,” as we are conversant with the celebrities of Greece or Rome. The only desideratum wanting, it appears, to complete the picture of Assyria, is a faithful sketch of her aspect in desolation, when she is “empty, and void, and waste; when flocks lie down in the midst of her; and when her rivers are opened, and her palace is dissolved.”¹ This we have endeavoured to supply in the three maps of the vestiges of Assyria, made from actual survey of the spot. Topography, however, is a dry subject, and we enter upon it with diffidence and reluctance.

The third sheet of the vestiges of Assyria is intended to convey a general idea of the region where flourished the principal cities of the Ninevite kings. On it, the relative positions of Nimrūd and Khor-sabad will be readily seen, with those of Nineveh and other remains more recently recognised as belonging to the same period. We may infer that in its local features the region cannot have materially changed since the era in which Nimrod, Asshur, or Ninus, migrated

¹ Isaiah x. 12.

² Nahum ii. 6, 10; Zephaniah ii. 14.

from the plains of Babylonia¹ to found a dynasty and a kingdom beyond the Záb. The great mountain ranges of the Taurus to the north and Zagros to the north-east and east, in this region sink almost imperceptibly into plains traversed at certain intervals only by slight ridges which, having a direction parallel to the sides of the greater chains, just rise in lines above the soil or crop forth only in undulations² of varying height, from W.N.W. to E.S.E. Eastward of the modern Mosul these ridges are mostly depressed and broken, offering outlets to the pent-up mountain streams which unite to form the Upper Záb, as well as to give passage to other tributaries, principally winter torrents and minor rivulets, that issue from the Jebel Maklúb, of which the Khósr-sú or Khorsabád stream is the chief. During winter rains this becomes an impassable barrier, while at other periods it is fordable in most places. It falls into the Tigris, in latitude 36° 21' N., just opposite the modern Mosul; and the Záb debouches in the same way, in the parallel of 35° 59' N., enclosing between its broad shingly bed and the Khósr stream, a highly arable plain, diversified, here and there only, by gentle undulations and slopes. This plain, a somewhat irregular parallelogram in shape, and in extent twenty-five miles by fifteen, contains most of the Assyrian sites we are yet acquainted with. It has a gradual declination westward from the basis of the incipient mountain range of the Jebel Maklúb and hill of Áyn-es-safrá, which are the most prominent natural features in the Nineveh landscape. These, skirted on the N.E. and E. by the Gomel or Ghásir-su, as by a ditch, defended the tract sufficiently on these sides, while the broad and rapid currents of the Tigris and the Záb protected it on the W., S., and S.E. The Khósr rivulet on the N. and N.W., insignificant as it naturally is, was rendered too a strong defensive barrier from invasion on these points, by artificial works, which we shall speak more fully of in a subsequent page.

It was thus an admirably selected position. Undulation and vale, ridge and plain, alike capable of tillage throughout the tract, offered

¹ We use these names as the generally recognized appellations of the founders of the Assyrian monarchy. The Targums of Onkelos and Jerusalem supply, however, other readings for some of the proper names found in our version of Genesis x.

² The Hamrín, Kara Husseyn, and Kara Chokh ridges, are curious instances of these gradations from mountain to plain, leaving narrow but extended steppes of very rich land intermediate between them; we shall notice them more in detail in a future paper. The first bounds Mesopotamia to the N.E., the latter terminates in the Sinjar group, dipping below the country west of Arbél, where the Tigris and the Záb course impetuously over its depressions. The undulations are left white in Sheet III.

a sufficiency of pasture at most seasons. Crossed too as it is by the beds of many watercourses, and generously visited with dews and winter rains, it was then, doubtless, as now, a most fertile region. In the spring and autumn, when covered with verdure and wild flowers, it must have offered such teeming plenty with little labour, that man, naturally desirous of ease, could not fail to appreciate its bounties. The climate too, if unchanged since that period, was favorable to his feelings in the primitive state of his existence, and the summer heats, tempered by breezes from the adjacent mountains, were doubtless deemed cool in comparison with the torrid blasts he had experienced in the plains of Shinar; while the rigour of winter in the rugged country beyond him was equally unheeded and unfelt in the genial atmosphere of the steppes where he had determined on fixing his future abode.

Here then we may presume Nimrod, Asshur,¹ or Ninus, first established himself, and planned the erection of those cities and edifices, the monuments of which, after thirty-five centuries of time, have been abstracted piecemeal by the stranger, and borne off as the trophies of a nation then unheard-of and void. We shall notice these cities more in detail when the first and second sheets of the vestiges of Assyria come under observation. In our remarks upon them we shall endeavour to maintain the metropolis in the position where it is evident it was first designed, notwithstanding some pains have been taken to transfer it to other sites; and, at the same time, shall attempt to do away with the prevailing idea as to its vast magnitude, which, founded on the gross description of Ctesias, quoted by Diodorus Siculus,² has led many intelligent men astray in search of the stupendous walls wherewith that author begirts Nineveh. Even the mountain range of the Jebel Maklúb, pronounced as "calcareous mountains" by a modern writer in one page, is made on the weakest authority "*the entire work of man*" in another; and, as such, is sought to be identified with the imaginary ample walls of the ancient city.³ This range rises perhaps to 2000 feet above the level of the Tigris, and, as we have before remarked, is the chief *natural* feature in the Nineveh

¹ This name would seem to imply that of the country, not that of the founder of the Assyrian monarchy, if the readings of the Chaldee Targums are to be adopted; and certainly the sense of the passage in Genesis x. is not done violence to, but on the contrary, is maintained by these interpretations.

² Ctesias' fragments would appear to be loose in every respect. Plutarch, Aulus Gellius, Aristotle, and Joseph Scaliger, it would seem, estimate his character for veracity at a very low scale.

³ "Nineveh and its Palaces," in the Illustrated London Library, pp. 83, 94, 97.

landscape; we sought in vain for vestiges of such stupendous structures as Ctesias ascribes to Nineveh, and which indeed could not have existed on a soil such as this without leaving traces of their presence to a considerable extent.¹ The proof of this is in the remnants before us of minor structures of the period.

Independent of its connection with scriptural events, and with the themes which excited the inspiration of the prophets, the tract represented on Sheet III. has high claims to the consideration of the scholar and antiquarian. Here are the mines which connect the present civilization with the history of the past; for all that we know of the early world, and all future knowledge that we are likely to derive, will doubtless be traced to the fortuitous occurrences recently enacted on this soil. Nineveh and its celebrities, as mere names, were just indeed discernible in the wake of subsequent historical events, when the spades of Botta and Layard revealed them distinctly to our view, and this too at an appropriate time, when enlightened minds were prepared for their study by long application to other records in a cognate character, though in a different tongue. To us, indeed, this concurrence of physical and mental energy appears more than a mere coincidence, and what may yet be disclosed to us from the interpretation of the records still entombed in the 350 square miles of the district, we are at a loss even to conjecture; for while fresh tablets are being exposed as the work of excavation proceeds, Cuneiform studies have acquired a stability which cannot but lead to success. Its claim to our regard, however, is not solely confined to the interesting discoveries but lately made by our travellers; the scene before us was the theatre of other renowned actions long subsequent to the struggles between the Assyrian and the Mede. Even when their names were as a proverb of the past, and England's fame lay buried in the future, this region between the Tigris and the Záb shone as the stage on which sovereign actors contended for the empire of the world. Darius here resigned his sceptre to the Macedonian; and Persia, after acquiring a second ascendancy, again fell before the victorious legions of Heraclius at the fatal battle of Nineveh. Mirwán, the last khálif of the line of Ommíyeh, relinquished too his sovereignty and his life on the same field, and from this reverse a new dynasty arose, that of the 'Abbassíyín, whose power, emanating from Baghdád, governed the world for the long space of 520 years. The banks of the Kházir, the

¹ Layard's testimony is conclusive of the exaggeration of the ancient writers. See *Nineveh and its Remains*, vol. ii. chap. 2, p. 275; and Niebuhr, in his *Lectures*, discards altogether the evidence of Ctesias, when considering the historical value of ancient chronicles.

Tigris, and the Záb have indeed witnessed much bloodshed, and if thus consecrated to posterity, they are no less sacred as the early seats of Christianity, for the faith as taught by the first missionaries is not yet wholly obliterated, though much distorted by immoralities and schisms. Five distinct creeds still flourish on the tract before us; in the Shebek and Yezidi faiths, we think, the first Chaldaic worship, terminating in subsequent Magian forms, may be traced; and the transplanted Israelite wanders, like the captives of Tobit's time, equally contemned and separate from his fellow man; while the Christian sects—perhaps from the persecution they have suffered—are distinguished as the most ignorant and boorish of all. The schools and colleges, both Mahomedan and Christian, once so celebrated here, remain only as mere names, while the distinguished works which emanated from the spot are either lost, swept off, or destroyed. In fact, in whatever way we contemplate the country presented to us, a vivid interest is excited, pregnant with heroic examples and moral lessons, adapted alike to the statesman, the soldier, and the priest. But we must quit the instructive pages of Assemanus and lay aside reflections suggested by the incidents related in the Anabasis and in writings of a subsequent age; our task is topographical description, and a laborious one we find it, for embracing, as it should do, every subordinate feature, with fatiguing precision, we cannot hope to escape the charge of prolixity, as well as that of venturing beyond our depth in endeavouring to relieve the monotony of geographical narrative.

As the nucleus of Assyrian dominion, we may denominate the territory shewn in Sheet III. as Central Assyria, for hence emanated the large possessions afterwards included in the several names of Athúr, Asshúr, Atúr, or Assyria. It was known also to the older historians and geographers as a part of Adiabene (*Ἀδιαβήνη*), the name of the province watered by the Záb, or, as it was sometimes written Diab, or Adiab, though strictly speaking, perhaps, its proper appellation as a mere district of Adiabene was, as written by Strabo, Calachene; the term having reference to the period when Nimrúd, or the Calah of Genesis, flourished as the chief city after the destruction of the *original Nineveh*. Nimrúd, indeed, is still occasionally called Atúr or Assyria, and was known as such to the Arab geographers.¹ We have pointed out in the paper on that place the probable manner in which these names become attached to Nimrúd, from, as we believe, its being the latest inhabited city of the region, which in the Cuneiform tablets is represented by meaning, if we

¹ See Yákút, in his *M'ajim al Buldán*.

rightly understand Colonel Rawlinson, "the low country Atúr or Asshúr." These characters would thus represent generic terms for the land, in the same way as Shinar represented Babylonia; and the interpretations of the Chaldee Targums of Onkelos and Jerusalem would then agree with the sense of the passage in Genesis x. 11, of "Nimrod going forth to build Nineveh," instead of Asshur the son of Shem, as read in our version of the Bible. Many learned men, among whom are some rigid divines, we believe, prefer this reading as agreeing with the context; and a passage in Micah, quoted by the author of the article on Assyria in Kitto's Cyclopædia, confirms this view of the subject. It runs thus, "They shall devour the land of Asshur with the sword, even the *land of Nimrod*," &c., designating the country as well as the accepted name of the founder of its primitive edifices. That such was a custom of ancient times, and pertains to this day in the East, is evident from the names being now indifferently used by the Arabs, who not only also characterize Egypt by its title of "Misr," but identify it equally as well by that of "Arđh Pharaoun," or the "*land of the Pharaohs*."

The conformation of the land and the positions of its chief edifices will be best seen from the map. We have no wish to recapitulate, but we must here express an opinion, contrary to those who have speculated on the exact form and dimensions of Nineveh, that it had no defined limit on the tract before us, such as Layard conceives it to have occupied in the area within the angles formed by the metropolis and Khorsabád at one, and Keremlis and Nimrúd at the other, extremity of the line.¹ On the contrary, we are disposed to view the Assyrian cities as placed where locally best suited to defence and convenience within the natural boundaries we have specified, without regard to any regularity on a grand scale, though the towns themselves, especially Nimrúd and Khorsabád, in their order of alignment bear evidence of much care in construction, as does the capital also, for the superior ends it was designed for. Led away by the gross relations of Ctesias, with reference to the size of the capital, and by its inferred magnitude from the pages of Jonah, the writer of Nineveh and its Palaces, a work published for the Illustrated London Library, in his second chapter has indulged too in an erroneous theoretical view based on the serious mistake of another sort which we have pointed out before,² and which

¹ When this was written we understood Layard to mean these positions as forming the angles of a connected line of circumvallation around Nineveh; but we have since had reason to believe we have misinterpreted the sense of his remarks on this head, and that his conjectures on this subject agree with our own in a general view.

² In the opening pages of this paper. The work alluded to (pp. 83, 94, 97) is

indeed negatives his arguments, otherwise founded, as far as we can see, upon no system at all. We are sorry to expose these errors, but silence would only serve to perpetuate an hypothesis which must strangely mislead instead of instruct. Much labour, indeed, has been lost in searching for walls where it is evident none existed, and the most zealous missionary—were he to denounce aloud in the public streets, as Jonah is presumed to have done—would find an ample three days' employment in the capital and its immediate suburbs; or, were his mission but a simple visitation to the four principal seats in the Nineveh district, a modern curate with no other incitement than his small pittance would easily perform the journey and his task in the specified period; for the entire circuit is but $61\frac{1}{2}$ English miles. We incline to the belief that Jonah's enumeration of its inhabitants has reference to the whole of the tract in our map, which includes a space of 350 square miles, and might accommodate a proportionate population of six or seven hundred thousand souls, including their abundance of cattle, with much ease.¹

In the opening page we have characterized the incipient mountain ranges of the Jebel Maklúb and hill of Mar Daniel or Ayn-es-Safra as the chief natural features in the scene. The attention of the traveller is soon, however, drawn from these to observe and speculate upon the numerous tumuli which cover the plain in every direction around. These constitute the artificial points of the Nineveh landscape, and are represented in our map by dark shaded circles, such as distinguish conical peaks in cartography. These are all the undoubted work of the human race, but whether of the Assyrian period, or of a Parthian era, there are at present some doubts. Some refer them to the latter, principally from the absence of anything tangible to theorize upon in the more regular tumuli, most of which, as we at present see them, are mere mounds of earth elevated in different places to heights varying from 20 to 80 feet above the plain. Others, such as the great pyramid at Nimrúd, are found to be regular structures of sun-dried brick; observable only when the interior of the mound is arrived at, the action of the elements on the outside having, in the course of time, reduced the material to the consistency and form of its original earth. The principal ones have square platforms, at present but little raised above the plain, though evidently connected in some way with

from the pen of M. Bonomi, and though there is doubtless some good collated information in it, it cannot be generally quoted as a guide for the attainment of Assyrian knowledge.

¹ More will be said on this hitherto bewildering subject in the detailed notice of Nineveh to elucidate sheet II. of the vestiges of Assyria.

the higher structures adjoining them. Though now rounded and for the most part preserving a beautiful conical outline, we are disposed to think most of them were originally of a pyramidal form, the gradual crumbling of the apex and falling débris having served to obliterate the angles in the lapse of time. There can be no question, we think, of their purpose being other than for religious observances; as, from the earliest times, "high places" were deemed essential to these forms; and the custom, moreover, with little variation, is still perpetuated by every age and nation, whatever be the creed. From the days when "Go to! let us build us a tower" were first uttered, eminences were preferred for sacrifice and prayer.¹ Traces of this preference still exist in the steeples of our own churches and the spires of our cathedrals; and the minarets of Islam, the pagodas of Burmah, China, and India, are, we conceive, but perpetuations of the "high places" of the Magi, which, perhaps, when artificial, were raised on the model of their archetypes, the pyramids in Egypt and the tower of Shinar.² Nimrúd, in our eyes, has consideration, indeed, as the chief spiritual residence of Assyria, from the lofty and peculiar structure of its pyramid; while Nineveh, we conceive, is entitled to the temporal honours of the capital, in which the Ninevite sovereigns were simply monarchs, whereas in the former they would seem to have performed also the functions of high priests. At all events these structures have preference, we think, rather as Assyrian than Parthian relics, from the fact of the Cuneiform-inscribed brick being found in some of those that have been excavated; and we may perhaps identify much that is related by Diodorus Siculus,³ concerning the works of Semiramis, in this respect, with the singular eminences before us; as well as of her descent from the mermaid-goddess Derceto, as yet, we believe, only found represented in the sculptures of Nineveh and Khorsabad. To continue the subject of these extraordinary piles. From the situation of some of them along the Khór's course they may have served too as rallying points for defence. The principal ones north of the Záb, shown in our map, are those of Tel Chímeh (تل كیمه), Tel Sabt (تل السبت), Khazneh (خزنه), Keremlis' (كرمليس), Fadhlíyeh (فضلیه), Beibókh (بیبوخ), Nejmok (نجموک), Telthameh

¹ See Lucian on Sacrifices, 1—4.

² Babel,














³ Book II., Chap. I. "She caused high mounds or eminences to be raised wherever she fixed her camp."

⁴ Evidently a religious edifice; this Cuneiform name, according to Colonel Rawlinson, being that of a god of the period.

(تلّمه), Abbasiyeh (عباسيّة), Tel Yāra (تل يارا), and Chittel (چتل). The rest are comparatively small, and those of Tel Billa (تل بلا) and Sherifkhān (شریف خان), or "the city Tarbis," partake more of the nature of mounds covering considerable ruins than that of isolated eminences. The latter, indeed, has proved a temple of Sennacherib's, having been recently excavated at the desire of Colonel Rawlinson. These works more than anything else speak of the populousness of the district; and, indeed, of all Assyria; for they exist in every direction within the extended limits of that empire: every homestead appears to have had one attached; and if really for sacred practices, we may imagine the sublimity of the scene presented by the assemblage of the congregations around the various altars in the open air. A signal by day, or the sacred fire at night, displayed from the chief sanctuary, might have prostrated the whole nation—under the great canopy of Heaven only—in simultaneous prayer. Beneath these eminences there yet exist two archaic treasures which, if excavations are continued, must be discovered. We advocate, however, more strenuous efforts for this end, for there is no knowing when the pleasure of the Porte may cancel the present firman in our favour, and leave us in the dark just at the time when some new phase in Cuneiform readings requires the greatest light to be thrown on the subject. The old proverb, "make hay while the sun shines," is equally applicable to Assyrian harvests; and while the rays of Osmanli friendship are warm upon us we should gather in our crops, for there are other and jealous gleaners in the field.

The rivers of this region are classic streams, and noticed as they are by writers of every age, they require little remark from our pen. Of the Tigris, enough has been said of its present locality in the succeeding papers; a bridge of boats at present spans it at Mosul, where a solid structure previously stood at no very distant period. From appearances above water it certainly looks like a modern work, and, we believe, has received repairs, even in the last century. Such a structure did exist, if we recollect right, when the legions of Heraclius crossed the Tigris to fight the disastrous battle of Nineveh, and the present remains may, therefore, be the identical piers over which that emperor, on his favorite horse Phallus, some twelve centuries back, marched to the conquest of Persia, then governed by a Sassanian monarch, whose ancestors may have constructed the bridge as necessary to their repeated designs upon the Roman frontiers in Syria and

¹  of the Cuneiform tablets.

Asia Minor. That no bridge existed here in Alexander the Great's time we gather from the difficulty he experienced in crossing the Tigris,¹ though no enemy opposed his passage: and, we may presume, the spot was equally devoid of one in the most flourishing period of Assyria, from its absence on the sculptures, where, however, we have the name of the Tigris in the Cuneiform, little differing from the various names preserved to us at the present day. On the map, the characters representing it, as kindly furnished by Colonel Rawlinson, are   and      (signifying The River Hattikkar or Hattiggar) the first two letters being the determinative of a river, while       has reference, the Colonel thinks, to the branch of the Tigris then washing the mounds of Koiyunjik and Nebbi Yûnus. As this river was so well known in the early ages we may well express some surprise at its being confounded with the Euphrates by many authors, particularly by Ctesias and Diodorus Siculus, at a later period. The error is easily accounted for, however, on other grounds than Ctesias being a proverbially loose writer, and we have in some measure pointed out the confusion as existing to the present time, in a previous paper² in the Geographical Transactions of Bombay. The fact is, this gross irregularity in the nomenclature has arisen chiefly from local events, and has been perpetuated by writers whose chief object appears to have consisted in collecting every amount of information, without critical examination of its value. It is as gross an error of speech *in situ*, at the present day, as it was doubtless in the age of our first historians. The error, indeed, is not confined to the vicinity of Mosul alone; it extends as far south as Samara on the Tigris, and is to be explained in our own day by the constant wanderings of the Dellím, the Jebour, and the Shammar,—the great tribes in Northern Mesopotamia—from the banks of the one river to those of the other. The Jebour, and the Dellím especially, own the large tract east of the Euphrates from the mouth of the Khabúr to Felúgia opposite Baghdád; and having drank of its waters from infancy, it remains a cherished appellation, and with them a generic or normal one, for most streams they meet with in their periodical wanderings to the Tigris in search of pasture, where it is considered more exuberant and of a better quality in the spring. Possessed too, as the tract itself now is, by a new people originally from the west of the

¹ He forded it in the autumn, not an easy task, even at this season. At others it is impassable on foot.

² On the Median Wall of Xenophon and position of Opis.

Euphrates, which river they were familiar with, the name has become in a measure patent for the Tigris, with the lower classes in the towns, not excepting the boat and raft-men who ply upon it, of every degree. To the Arab geographers and the less illiterate portion of the modern community, it is, however, well known as the Dijl or Dijleh (دجلة) the Hiddekel of Genesis, identically the Khali,¹ Hattikkar, or Hattigar of the Cuneiform Tablets, and through the Greek *Tίγρις*, our form of Tigris. The ignorant Arab, moreover, while wrongly designating it the "Frát" or "Euphrates" will readily admit his error if reasoned with on the real distinctive titles the streams separately bear. The confusion, indeed, appears to have originated very early in the constant changes which the country underwent during the incessant wars maintained for extension of empire, in which the inhabitants of a region were, as captives, transported "en masse" to swell the distant possessions of the conqueror. The countries beyond the boundary of the Euphrates were ever the coveted possessions, and the Assyrians, we know, gained an extended frontier westward of that stream, whose population, as captives of war, thus carried with them to the banks of the Tigris which they were subsequently to colonize, the associations and the names attached to the homesteads of which they were individually bereaved. The descriptions of Herodotus, Xenophon, and Arrian are, however, testimonies too strong to affect our positions in favour of a change, even were we unable to point out the mode in which such and other discrepancies prevail in the pages of Ctesias and Diodorus.

The Upper Záb is the next principal stream in our plan. Having its source in many tributaries from the Kúrdistan mountains² it falls into the Tigris over a broad shingly bed, interspersed with several islands, in latitude 35° 59' 30" north. There is evidence in its banks that it flowed in a more confined space in early times, its occasional fierce character as a mountain stream coursing over a hard bed having now widened its valley to an extent in places equal with the Tigris, though in the autumn it is insignificant enough. This extent of valley has rendered it difficult to bridge, and in no place is the poverty of the Turkish government so conspicuous as it is in the passage of the

¹ This term I believe is still to be traced in the country; it is found applied to old water-channels. See my journey in search of the Median Wall and Opis, in Bombay Geographical Transactions. Khálí or Chálí are indifferently used at the present time for the old watercourse so long confounded with the Median Wall of Xenophon, and known more generally as the Sidd-i-Nimród or Nimrod's dyke to the modern Arabs.

² "Sogdian mountains" of Arrian.

Záb, where, on the main road to the principal cities, we have, as a means of crossing, but a couple of rickety rafts of nine feet square, worked by a few Yezidi Kúrd in connection with the miserable hamlet and post-house located at the Kellaks of our map, where the road from Baghdád, past Arbíl, leads on to Mésul. Wretched as the site is at present, the occurrences connected with the second name invest it with an interest singularly pleasing to the traveller, for, unchangeable as things are in the East, these spots doubtless mark the identical fords passed by Alexander the Great, in pursuit of Darius. Here, indeed, we may presume the conqueror encamped to refresh his weary followers after the battle, which so far as conjecture and history guide us, was fought on the tongue of land intermediate between the Záb and its tributary the Kháxr.

The army of Darius, we imagine, occupied the superior portion of the gentle slopes leading from the summit of the tongue to the Kháxr's bed, which stream is recognized by philologists as the *Bumádus* of Arrian's history, through its modern name of Gomel, as used in the north districts of its course, by the simple and prevalent interchange of the β for the γ and δ for the λ in the name.¹ Gomel or Gomelus thus becomes Bumadus; and the Gaugamela, where Darius was encamped, may with more certainty be identified with the actual name of the stream, although Rich questions such an inference, suggested first, we believe, by the celebrated Rennell. The present Tel Aswad may, therefore, mark the site of the "Gau" of this tributary, whatever its own signification may be. At all events, Arrian's distances of the armies from each other and descriptions of the locality coincide in a remarkable manner with the present features. Sixty stadia's length westward on the main road would place Alexander's army in the depressed plains around Keremlis, shut out by the intermediate elevations which, skirting the west bank of the Gomel or Kháxr, connect the heights to the right with the hill of Áyu-es-safra and the Maklúb range, to the left. A large army encumbered with chariots and armour could only follow this road even if Darius had not selected a position (unfavourable, as we think it) between the two streams, one of which, the Záb, difficult of passage, was in his rear. Doubtless, personally he had the means of retreat across it, and to this perhaps, his defeat may be ascribed, for he was in evident alarm at the character of his adversary, or he would not have permitted him to pass the Tigris with the impunity he did. It may be, however, that Darius himself had reached thus far only on his road to oppose him, and a

¹ Colonel Rawlinson, we believe, holds this opinion.






fortuitous event, perhaps, aided in accomplishing his overthrow. But we are digressing while endeavouring to point out "*the hillocks lying in the middle*" which hindered the army of Alexander seeing their opponents when at the distance of sixty stadia, and will conclude this part of our subject with a reference to the map, where it will be seen an advance of the thirty stadia, mentioned by Arrian, would place the Greeks on the level of the ridge just east of the artificial tumuli Tel Amír and Tel Husseyn, in "*full view of the barbarians*," where the great council of war was held, and where Alexander exhorted¹ his captains and followers to maintain their ancient valour in the field, which was so soon to destroy the prestige of the Persian name, and revolutionize all Asia for two subsequent centuries at least.

Previous to this great event, however, there was another equally glorious to the character of the Greeks, in part enacted on the same soil. We allude to the retreat of Xenophon and the celebrated Ten Thousand through this territory. Though we have no tangible position described, we are at no loss to decide upon the exact point of the Greek's passage of the Záb. From the twenty-five stadia, enumerated in the Anabasis, as performed on the day of crossing, before coming to the valley and the villages west of the Záb, we are confident that the army forded the stream, which then bore the name of Zabatus, a little above its junction with the Gházr or Khásr-su. This latter is undoubtedly identical with the "*valley formed by a torrent*," where the Greeks suffered so much annoyance by the enemy as to retard their advance; and there is no question of their subsequent positions on the region embraced by our map; for the harassed legions were evidently bending their steps to the Tigris, where at least one flank was safe from annoyance, after a diversion made to ford the Záb in the best available spot above the confluence of a considerable torrent, which rendered that river impassable in its career through the lower and softer soils below. They moved early on the following day, to give time for the passage of the Gházr in face of an active enemy, whom, a little beyond, they defeated with some loss, thus enabling the march to be performed without difficulty for the rest of the day. Twelve geographical miles may, therefore, be fairly allotted to this performance, anxious as they were to proceed, yet vigilant and in battle array, and we accordingly lead them from the banks of the Kházar-su, at Gháza-Khán Teppéh, in a direct line through the gently undulating valley, past the position of Khidr Elyás to the Tigris abreast of Nímrud, which ruin is too distinctly described in the Lariassa of the Anabasis,

¹ See Arrian's Expedition of Alexander the Great, Book III., chaps. 7 to 15, inclusive.

to admit a doubt of its identity, though twenty-two centuries have elapsed. If, indeed, uncertainty existed it would be dispelled in the next position near Mespila, where the intermediate distance of six parasangs can scarcely be more correctly defined; the "*Castle of the Medes*," or ancient Nineveh itself, being, by our map, a little under seventeen geographical miles.

The Záb, indeed, is a well known stream, and abounds in beautiful fish, some of which attain a very large size, particularly the Firkh, (فرك) a good donkey-load, found also in the lower Záb, Diyáleh, and other streams emanating from the Zagros. Singular enough the name of Záb has from the earliest times been maintained to the present day. The Arab geographers and historians wrote it in the same way as it is found engraved on the Cuneiform tablets, in terms meaning "the higher or upper Záb," the characters زَابُ الْعَلِي Zāb al Āla, or زَوَابُ الْعَلِي Zúáb-al-Āla, answering to the Assyrian 𐎶 𐎶 𐎶 𐎶 𐎶 𐎶 pronounced as "Zāba-elita" by the learned Assyrian commentator. Xenophon gives it as the Zabátus, while other Greek writers name it as the Lycus, Λύκος, "the wolf," this being apparently a mere Hellenized form of Záb, which in the Semitic dialects, especially under the Arabic form of زَابُ or ذَب, has the significations of "wolf," and "restless;" such as is applied to the disorder created among flocks by the sudden approach of the animal of that name. The term, indeed, is quite characteristic of its wayward and suddenly impetuous energy when acted upon by hill thunder-storms. The province of Adiabene derived its name also, it is supposed, from this and its sister stream, being in the Aramæan, according to the writer of the article on Assyria in Kitto, Chadyab, or Hadyab. We suspect, indeed, that mountain streams like the Záb and Kházr-su, in the latter Assyrian dynasties, bore a sacred character, from the labour taken to conduct them by the canal and underground tunnel represented in our map, originally emanating from Negoub, but afterwards extending below the hills from the banks of the Kházr-su to Nimrúd, which in its observances as the chief asylum of religion, may have required the employment of mountain water thus brought, perhaps by a praiseworthy veneration, to this sanctuary; for the Tigris, even at the present time, is not so far distant as to necessitate the undertaking of such a work for the ordinary wants of life, when a canal dug in the alluvial plain from the bend of the river at Selamíyeh would, at any time, convey the fluid to the base of the great pyramid and the palaces to the west of the town. The eastern suburbs of Nimrúd, also, isolated























































as they are from the enceinte of the original town, would seem to have risen in a subsequent age, as if designed for purposes connected with the great conduit terminating at the base of the mounds. The high cliff, through which the mouth of the aqueduct is tunnelled at Negoub, shews that the Záb originally ran deep on the northern bank, and maintained a constant stream in the canal. The river, however, it is evident, subsequently abandoned this work for the opposite shore as its bed gradually widened, and hence the continuation of the tunnel beneath the elevations which lead to the banks of the Kházzr, which stream, we may suppose, was permanently dammed near its junction with the Záb, to turn its waters fully into the excavation. For the age, it is undoubtedly a great work, and, moreover, bears testimony that the science of levelling was well known to the Assyrian people.¹ But a small portion remains at present entire at Negoub, the encroachments of the river having swept off the parts connecting it with the remnants near Gubbeyeh, in the course of time. It is neatly chiselled through a hard sandstone and surface-conglomerate, to a depth, perhaps of forty feet; the sluices and dams which regulated the supply of water being ingeniously formed from the original rock left standing in the centre. The work is referred to, we believe, in the Assyrian records; and an inscription formerly existed at Negoub, which, thrown down, has been carried off or broken by the parties employed in Assyrian desecration. At all events it no longer remains "in situ" to proclaim the name and charitable purpose of its founder, though these and its own title *have* been rescued from oblivion; the latter we have furnished us by Colonel Rawlinson, as      "Pati-kanal," the last word evidently the "canal" of our own language.¹ The Arabic Negoub (نقوب) is a mere modern appellation applied to it, as a tunnel or "hole" in the rock; and Káriz, (كاريز), that of its connecting arm with the Kházzr, is a compound Persian term in general use for subterranean water channels. The latter tributary of the Záb, in the country represented by the map, is generally known as the Gházzr, but the real orthography, as given by Yákút in the M'ajim-al-buldán, is Kházzir (خازر) the former being a corrupted form of it, used only in speech.

¹ Much ingenuity and hydraulic skill is here evident in the Assyrian people, the canal being, for eight miles, led contrary to the natural course of every stream in the district.

² See also Layard's *Nineveh and Babylon*, chap. XXVI., pp. 616, 617, and note §.



The remaining stream of the region is the Khósr-st, the character of which is more minutely given in the paper on Nineveh. It rises in the elevations north of Khorsabád, but we were not allowed time to accomplish more than an imperfect survey of its course, from the west of that ruin to the Tigris. Indeed, for the same reason, we were compelled to abandon any lengthened operations at Khorsabád itself, though we were enabled to connect its principal features trigonometrically with its sister cities, in which work we derived all possible information and assistance from the kindness of M. Place, the French consul, then resident there. We observed, however, of the Khósr, that though at times a mere rivulet, its deep and tolerably wide bed, by shutting up its outlet at the margin of the Tigris and supporting the accumulated waters by strong dams at appropriate positions on the gradations of the country, could be filled to any extent, and thus converted into an effective barrier against aggression from without. We are persuaded, indeed, that such a system of defence was adopted by the Assyrians, for the protection both of the capital and Khorsabád, which places were doubtless insulated from approach by the simple retention of as much water as was necessary in the Khósr and its adjuncts around the latter city. This subject is, however, touched upon in our opening conjectures upon Nimród, and we see no reason to alter the opinion we have hazarded, regarding the necessity of establishing the mass of the population on this, naturally the weakest side of the district before us. On the contrary, we are more than ever impressed with the idea, purely on geographical grounds, that Khorsabád arose as a stronghold of Assyria simultaneously with Nineveh itself; though it has been generally held to have less claim to antiquity than other sites on the same soil. Of its sculptures and other works of art, considered with reference to the glory of the founder of the palace (Sargon), we have nothing to offer, but award it archaic honours from the earliest period, in consideration of the necessity for its position alone. After all, the palace of Sargon may consist only of an embellished suite of apartments, or a temple of a later period, built upon, or adjoining to, the original structures.

Were we, however, to draw an inference of the age of Khorsabád from its monuments, we confess a desire to support our local arguments by the presence of the fin-tailed monster on its walls; which effigy exists also at Koyunjik, while absent from the sculptures obtained in Nimród, as if out of its element there. Under its various appellations of Dagon, Odakon, Derketo, Atergatis, Oannes, and Noah, it seems pretty generally understood that the device subsequently worshipped in many parts of the East, emanated in Babylonia, where it heralded

the descent of the people from the patriarch of the flood; and as such, we may presume, in the chambers of Khorsabad and Koïyunjik, typified the race of their founder as originally from the plains of Shinar. Semiramis is named by some authors¹ as the offspring of a mythic goddess of this nature, who as a mermaid may have represented the patriarch's wife, as did the merman our second progenitor, Noah. At all events the symbol, in combination with these historical personages, has a signification of some value perhaps, in the consideration of the comparative antiquity of Assyrian and Babylonian vestiges, and in the former place, may also serve as a relative index for determining priority of construction in its several edifices. Colonel Rawlinson, we are aware, has long held the opinion that the Babylonian vestiges in Southern Mesopotamia are those of the most early structures of the human race, derived partly from the history of the people and partly confirmed by his own observations on the spot.² We but allude to the figure in two of the Assyrian edifices as indicative perhaps of their being the first established positions in the region, as well as confirmative of our own ideas that Khorsabad was an outwork of Nineveh at the dawn of Assyrian existence as a colony. The lofty tumuli of Telthameh, Nejmok, Beibokh, and Ábbasfeyeh, erected at regular distances on the Khósr's course, and midway between the extreme posts, speak of a vigilance essential to the preservation of the dams which rendered the Khosr a sufficient bulwark against invasion from the north-west. In the inscriptions this stream is written     and                                 which Colonel Rawlinson pronounces as "the river Zakabirátí;" and the signs                   have, he thinks, reference to the modern name Khosr خوسر, found in the geographical dictionary of Yákút. It is written indifferently by the moderns Khózr خوزر, and sometimes further corrupted to خسرو, Khusrú. It has been thought too that Khorsabad derived its name from a permutation of the letters in that of the stream, but this is not

¹ See Diodorus Siculus especially.

² Within the last few months other Babylonian ruins have been brought to light that were never before known to Europeans. Our active Vice-Consul at Basrah, Mr. John Taylor, escorted by his Arab friends, visited the most prominent of these, termed Abu Shehreyn. His journals are in the hands of the trustees to the British Museum, and there are not wanting people in every way calculated for such enterprise, who are ready to explore the region as soon as the authorities have settled the question. Let us hope the French are not the first in the field, as at Nineveh and Khorsabad.

the case, though the title Khorsabad is a corrupted form in itself, from Khurústábád, خوروستاباد as given in the 'Májim-al-Buldán of Yákút. This latter is the name of a village which grew on the spot long after the Assyrian period; but Yákút notices the older ruin, under the name of Sarghún, صرغون, which is found too on the tablets excavated by M. Botta, shewing that the Assyrian name attached to the spot a few centuries back only. It appears on the Cuneiform tablets, according to Colonel Rawlinson, as , or , "Dur Sargina;" but whether it ever possessed or not a previous title, must, perhaps, remain in the obscurity of the past.

We here close the more general description of the locality, to enter upon that of the capital, better seen on the large scale of Sheet I. Before doing so, however, we would call attention to the Appendix, (No. 1), where the interested reader will find the names of the various places noted in Sheet III, written in the Syriac form, with both the proper and corrupt modes of writing their Arabic equivalents. It is scarcely necessary to add, that the more corrupt orthography and pronunciation are most in use, at the present day, among the lower classes; and the significations of some of them must be considered doubtful also, from the difference of opinion expressed in the country, as to the true meaning of many of the terms.

REMARKS ON THE METROPOLIS OF ASSYRIA.

Descriptive of the Capital, as shown in the first sheet of the Maps.

It is evident that in the selection of a site for "the great city," the founder of Nineveh was not actuated by chance or caprice alone; for no little ingenuity has been displayed in taking advantage of the natural features of the country, so as to adapt them to the proposed end, that of protection and defence from the encroachments of his fellow-men. But before entering into the dimensions and details of the metropolis of Assyria, we call attention to it only as the principal city of the district included within the four streams shown in Sheet III, and distinctly specified in page 3 of the paper accompanying it. We need not look, indeed, for the extended walls ascribed to it by Ctesias, for it is evident they never existed, except in the imagination of the writer; and the "exceeding great city, of three days' journey," enumerated by Jonah, instead of being, as is generally thought, corro-

borative of Ctesias' accuracy, is simply conclusive, we think, of the character of the Ninevite abodes, separate, yet contiguous to each other; for the term "journey," in our opinion, implies a going-out from one to the other,¹ for the necessary visitation demanded by the mission of the prophet. More will be said on this subject when we consider the identification of the spot bearing the name of Nineveh at the present day.

We have here only to remark that the implied population, from the metaphorical expressions of Jonah, could not be maintained within the circumscribed limits before us.

But that the worn-down mural structures of our map are those of the principal city of the region there is little doubt, and we infer therefore, as in other countries,² the capital derived its name from, or *vice versa* gave its name to, the district where the founder first determined on fixing his abode. The phrase "a great city" might indeed, with every propriety, be collectively or individually applied to either one or all of the Nineveh edifices; for it must be remembered, the people of the climates we are treating of, were, from the earliest times, dwellers in tents, from the Nile to the Tigris; and walled enclosures, however diminutive, possessed, in their eyes, a relative magnitude which we cannot question in the present day.

"Is not this Great Nineveh I have built?"³ may be a pardonable exultation in the mouth of the Assyrian monarch who raised the first edifices over the heads of barbarian men; but, in the present civiliza-

¹ From Nineveh to Nimrud in round numbers is eighteen miles; thence to Khorsabad about twenty-eight, and back to Nineveh by the road fourteen miles.

² Exemplified in many counties of England alone: Yorkshire, Gloucestershire, Nottinghamshire, and others, where the "shire," as derived from the Saxon "scir," simply means a division, or separate territory, and the chief town took the name of its original lord, or first possessor. We have the same term in the Persian term "Shehr," شهر, "city," applied to separate congregations of men: and in the similar Arabic word we can perhaps trace the extended meaning of "renowned," or "wide-spread," a favourite title for illustrious cities, as well as personages, of the olden time. We are inclined, indeed, to consider that in the words Nineveh and Ninus we trace the name of Nimrūd; the "m" and "n" in the middle of the names being common enough mutations in every language; while the terminations "evah" and "us" are referable, perhaps, to Semitic and Greek forms, with which the learned may assimilate the meaning of "house," or "abode." Nimrūd is supposed to be a compound name; the latter syllable in the Hebrew being expressive of the title of "rebel," or "mighty," in accordance with his character.

³ The quotation is here, perhaps, a little distorted, but is equally applicable to Nineveh as to Babylon. Sacred and profane writers agree in distinguishing it by the term "great," and in a poetical fragment of Diodorus Siculus, Νίνος μεγάλη is employed to express its character as a city.

tion of Europe, such language would be intolerant in prince or subject ; for the simple reason that man is daily familiarised with progressive art, which enables him to conceive and behold the most stupendous objects with less admiration and astonishment. The superficial observer may, therefore, derive no interest from the dry topographical details of a spot more insignificant, in respect of size, than a second-rate borough town in Europe ; still the associations connected with its foundation—its subsequent rise to power, and reverses to degradation—its monuments and records, but recently exhumed—must invest it with an importance that will attach even to the crumbled walls, which, for twenty-five centuries at least, have concealed the materials which fill up a large gap in the previous history of our world.

In considering the map of the capital of Nineveh¹ we must exclude from our mental view all human structures, and regard, at first, the natural features of the spot alone. Imagine the Tigris, then, thirty-five centuries back, confined by the cliffs now seen at Bâsh-Tabiyeh, abutting further to the north-east, in a valley of two-thirds of its present breadth only, and for this reason attaining a somewhat higher level than it does at the present day, especially in the floods. As the dip of these countries is all southerly, fluid pressure will also, unless diverted by local irregularities, impinge on the southern curves of the land. This has led to the abrasion of the western cliffs, and diverted the Tigris from its original position, now occupied by the village of Armúshiyeh. In the low season of the stream, from September to January, during those remote ages, let us regard it as occupying the curve it does now, just east of the wooded island, near where the road leads up the cliffs to Tel Keyf, past the tomb of Sheikh Ahmed-al-Kharáza.² From this point, to have flowed over the site of the modern village of Armúshiyeh, at the season and time we speak of, it must have had its eastern margin just in the line now occupied by the south-western wall, the alignment of which we may presume was laid out along it ; and, indeed, the gentle curve at the south-west angle of the city will warrant this inference alone. As the spring drew on, we can readily conceive the rising water, bound in by the abrupt precipices of the right bank, extending its approaches more to the east, up the gentle incline, as far as the margin of what we term the spur, or lower crops, emanating from the undulations north of the city, until the highest annual level had been attained, in the season of our May. At

¹ Vestiges of Assyria. Sheet I. "An ichnographic sketch of the remains of ancient Nineveh, with the enceinte of modern Mosul."

² A Mahomedan doctor of some reputation in the neighbourhood, though we could not ascertain the precise nature of his claims for veneration.

this time we can picture to ourselves the steep cliffs north-west of the tomb of the modern Mahomedan Sheikh Kharáza, begirt to some height by the swollen and rapid Tigris, which passing onwards, swept more gently into the inclined and shallow recess to the south-east, occupying the embayment as far as the mill of Armúshíyeh, and beyond that place submerging, in its spring career, the then winter delta of the Khósr-sú, with the low grounds now marked "swamp" in the map ; covering at the same time the ground plots of Koiyunjik and Nebbi Yúnus, then not raised, and filling the valley and ravine (No. 29), until checked by the rising grounds bounding them on the south, which its waters then embraced, in their descent onwards towards Yáremjeh. The hard sandstone cliffs north of Kharáza, as well as the softer sedimentary deposits forming the old river margin lower down, bear evidence of this water attrition, in an unmistakeable extent.

Keeping in view this spring aspect of the Tigris in the early ages, when considering the natural form of the land at the period, let us quit the margin of the great river, and range eastward along the banks of the Khósr-sú. As we progress across the spur it will be observed that the land, on either hand of the rivulet's course, has a gentle rise, until we stand on the position occupied by the east wall of the capital, on the crest of the spur,¹ and that the country declines to an extended hollow plain, before rising again into other lofty and more distant undulations beyond. From this point the general direction of the Khósr-sú, to the gorge west of the ruined position of Hashemíyeh, is nearly north ; keeping, however, a rather winding course through the hollow plain, terminating at the declivity of the crest, until it meets, and is diverted westward by, somewhat more elevated slopes, abutting eastwards from the position No. 11, where, if we take up a new position, we perceive that the Khósr-sú, by channelling the land at our feet, can be led southwards along the east face of the spur into the vale and ravine delineated at No. 29. Turning northwards again, we skirt the crest of the spur to its junction with the low range from which it is thrown off, and with which a few cropping mounds alone connect it, separating, at the same time,² the recess or bay on the west side from the hollow plain and bed of the Khósr-sú on the east ; while the original low range itself sweeps here to the east, as far as, and beyond, the gorge west of Hashemíyeh, where there are numerous ravines,³ so deeply furrowed by the action of winter torrents, that the designer of the city could not fail to foresee and provide for the acces-

¹ No. 27 of the map.

² No. 23 of map of Nineveh.

³ No. 26 of map of Nineveh.]

sions to the waters of the Khósr itself, which must, as in the present day, have been at times wholly impassable; and, indeed, if happening conjointly with the season of flood in the Tigris—when we are contemplating our mental survey—the platform of Nineveh, for the most part, must have presented an unwholesome swamp. The words of Nahum,¹ “but Nineveh is of old like a pool of water,” in reality would seem to convey the *primitive* aspect of the site, at a certain season of the year.

To enter into detail as to the motives² for the selection would be, perhaps, a profitless task, but as we proceed we shall see the skill of the designer enabled him to convert the morass into a habitable position, strong enough in those days to defy the power of mankind, as well as to become the “treasure house” of the surrounding nations, which its people had despoiled.

We will now view the locality under the autumnal garb we consider it to have worn at the period we are discussing, when the waters of the Tigris had receded, and occupied, in respect to space only, the number of yards, as in breadth its bed does at the present day; but, in regard to position, the course we have pointed out two pages back. At this season, the stream of the Khósr, represented by an ankle-deep rill, slowly wound its way among numerous islands and shingle flats in its bed; and the spur of cropping undulations, which under the spring aspect resembled an almost isolated peninsula, was now edged by a broad expanse of pebble and alluvium, deposits of the retiring floods. This is the period for operations, and the Assyrians, let us suppose, are gathered to the task. The cut³ along the east face of the spur, to the south, is rapidly completed, and a corresponding one, on the opposite side of the Khósr, to the north, is stretching its channel to the verge of the range, where the spur is thrown off, to meet a canal⁴ cut from the right bank of the Khósr, about a mile north of the gorge near the position of Hashemíyeh. This cut is the city moat (12), or inner ditch to the capital, and, where meeting the canal, is on a perceptible higher level than the southern portions. To continue this ditch the spur is separated from the range it was attached to by a cut of nine

¹ Nahum, ii. 8.

² It will suffice, perhaps, to point out the Khósr channel as the weakest boundary of the district under review. The bulk of the population was here necessary to its defences; and in the angles formed by the Khósr's junction with the Tigris, the most convenient site was found for the capital, whether for trading purposes, or for protection and defence. See also “Topography of Nimrud,” where the subject is further considered.

³ No. 12, map of Nineveh.

⁴ No. 24, map of Nineveh.

feet deep,¹ crossing it in a direction of south-west, from just above the junction of the canal, to the east (No. 28) margin of the Tigris ; its continuation, south of the Khósr bed, stretching at the same time with an easy decline, to the ravine at No. 29, which connected it in this part with the Tigris also.

While these excavations were proceeding, the walls of the capital, we may presume, were being fashioned of sun-dried bricks out of the earth extracted from the trenches, and of blocks of stone, which, we believe, on further examination, will be found forming their *basement* throughout the alignments of the city ; for in most parts where the wall has been dug into, neatly hewn blocks of limestone have been extracted, and indeed, may be passed on the surface of the soil around. Their regular cut surfaces lead us to conclude, however, that if the Babylonians, under Nimród, first founded the city, the walls must have been fashioned by the expert masons of some other land, where lapidary science and the tools necessary to it had already attained to a respectable standard which could not have been acquired by the founders themselves, whatever may have been their skill in the construction of ordinary bricks, which they had doubtless some experience of, from Babel tuition, under the discipline of a Nimrod, in the plains of Shinar. At all events the perfect form of these cubes of masonry, combined with their singular position—if they do really exist throughout the foundations of what has been considered by some as the archetype of cities—would point to an architectural era long antecedent, perhaps, to the foundation of Nineveh.² We believe the question has been already settled by the learned in favour of the antiquity of Egypt. The subject is still, however, curious and interesting, considering the author of the Pentateuch (himself an Egyptian) in the pages of Genesis accords to Mesopotamia and Assyria the geniuses of design and execution in the establishment of permanent abodes. This is, however, a digression from the subject in hand.

The excavation (No. 12) is prepared, we infer, for the reception of the Khósr and the protection of the city. As soon, therefore, as complete, let us imagine a dam (No. 27) of massive stones being carried across the bed of the Khósr so as connect the ridge of the spur sepa-

¹ No. 23, map of Nineveh.

² Xenophon, in the famous Retreat of the 10,000 Greeks, notices a plinth of polished stone, forming the lower parts of the walls of the Median city which is identical with that before us. He adds, however, it was full of shells, and this statement can be verified by the curious in the present day. The conglomerate is a predominant feature in the excavated ditches, and an artificial concrete in many places forming a facing to the scarped sides to prevent water attrition, is traceable also in many parts.

rated naturally by its current. The Khóar—or at least a part of it—thus turned into the new channel, joins the Tigris by the ravine at No. 29; the remainder, by partially damming the stream further to the north, filling the canal extending from its right bank to No. 24, and there bifurcating, one branch occupying the cut separating the spur from the range (Nos. 12 and 23), the other coursing down the decline to the south to join the pent-up basin in its bed at the dam, where, unsupported, during the freshes of spring and in heavy winter rains, there must have been a pressure threatening considerable danger to the growing city. This was, however, provided for, and the risk much lessened, by erecting other substantial dams¹ (27, 27, 27) in advance of the main one; and a semilunar fosse, with a sluice gate,² of slightly irregular form, named in the map; the central ditch (No. 13) would seem to have been subsequently added for further security against floods. It has a deeper channel at its head than the city moat (No. 12), but where it was conducted into that aqueduct below No. 11, the former becomes increased both in depth and extent.

It is evident, however, that these outlets were deemed at times either insufficient in magnitude for the purpose, or that danger from without required a stronger bulwark to guard against the surprise of an active enemy, by the formation of the great eastern ditch and rampart, No. 14 of the map. This in itself, for the age we speak of, is a work of great magnitude, considering it is cut for upwards of two miles with a breadth of two hundred feet³ through a peculiarly hard and compact siliceous conglomerate, perhaps the very worst of all soils to excavate and remove, for neither the pick, the chisel, nor the spade, can be used with advantage in it. This ditch occupies the whole breadth of the flat or hollow at the base of the spur, the rampart thrown up on its east side acting as a great barrier to the Khóar's further progress eastward, and at the same time by

¹ Remains still exist.

² See dam in fosse just below the Ayn-al-Demlamájeh. The other outlets appear also to have had dams and sluices for arresting the rapidity of the current in its descent into the ravine at No. 29; the places they occupied are shown in the map. At No. 23, where the spur has been separated from the range, for the reception of a part of the Khóar waters brought by the canal to No. 24, the obstructions are placed toothwise from either side of the bank to check the velocity of the torrent in its passage over the spur, before descending into the low recess beyond the cliffs.

³ The east bank is the great rampart facing the plain beyond. It varies in height from sixty to eighty feet above the level of the bottom of the ditch at the present day, though roads have led over it for many centuries back. It is formed from the excavated soil of the channel at its base.

a sweep at its north extremity enclosing the ravines at No. 26 so as to accumulate their supplies as well as carry off all redundancy in extraordinary floods of the Khósr. Thus the defence of the city on the land or Median side was amply provided for by shutting the great dam, which, we may infer by the remains, existed at No. 29, so as to close the space between the south wall of the city and the tertiary ridges rising immediately southward of it. In this way, not only the three excavated channels forming the defences south-east of the Khósr's bed would be filled, but, if necessary, the large open space including the bed of the Khósr to the north of the dams (27, 27, 27) might be converted into a lake extending from the east wall of the city to the great rampart beyond the outer ditch, by simply preventing the further discharge of the Khósr's water through the canal No. 24 into the Tigris at No. 28 of the map. The pressure, indeed, on the dams (28 and 29) at the margin of the Tigris was doubtless very great under such circumstances, but, we may presume, it could be relieved by sluices at any time; and the cross dykes, acting like lock gates in the canals themselves, would prevent the whole force weighing on these positions alone. Appearances too in the present road to Khorsabad, crossing to the north-east angle of the city from immediately north of the great mound of Koiyunjik, convince us that the eastern ditches and canal of the Khósr had here an outlet to the Tigris also, though at present, by the crumbled wall near No. 24 having filled up the bed, we do not observe the actual point of connection. Immediately within the wall, however, and around the mound of Koiyunjik, the bed is well marked that must have isolated the palace of Sennacherib from the adjacent quarters of the town. This branch, separating into two arms at the north-east angle of the Koiyunjik mound, fell into the Tigris to the west, and into the delta of the Khósr, then, as we have often repeated, near the mill of Armúshiyeh. The water defences, therefore, could not have been more perfect; and the beauty of the landscape must have been considerably enhanced by their variety and disposition.

Having, as far as we are able, described the locality and the system adopted by the Assyrians for turning the natural streams into artificial defences, let us consider the enceinte of Nineveh itself. The principal wall is evidently that on the east side; it is raised on the crest of the spur of rock selected for the site of the town, and forms a slight curve, in the natural direction of the rock, with its convexity to the north-east-by-east. That the wall was originally continuous, the remains of the great dam in its line, as well as the water-channels to the south-east, leave no cause to doubt. It is now, however, rup-

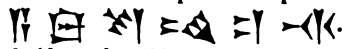


tured, and the Khósr again flows in its ancient bed. From the Khósr the portion of the wall northwards is the highest and most considerable in respect to dimensions, averaging, in its present crumbled state, forty-six feet above the actual soil, which, as the crest of the spur, is of course more elevated than the surrounding land. A slope, partly legitimate, partly débris of wall, forms a glacis of one hundred and thirty feet horizontal width on to the city moat in this part, which latter is ten feet in depth; and at No. 25, where there appears from the existing ruins to have been an outwork, the water admitted to it would seem to have passed beneath a bridge to its connection, as well as to have been carried around the east side of the outwork itself. This portion of the wall is 6,800 feet in length, while that south of the Khósr, varying little from it in height and breadth, is 9,200 feet long, having, at 4000 feet, where the main road to Baghdad now passes through, two tumuli¹ more elevated than the adjoining parts, from which much fine masonry, bearing Cuneiform legends, has been extracted. At 7,850 feet from the Khósr is another elevation, which probably contained also a loftier edifice, that would seem, from the dam in the bed of the moat, to have acted as a keep to the work, as did the buildings enclosed by the tumuli to similar dams lying just eastward of them in the moat, as well as in the beds of the central and eastern ditches beyond; for a covered way to all appearance led from the walls to the open platform or semilune adjoining, on which, in time of invasion, could be assembled a large force for the protection of the dykes, the only vulnerable points exposed to an enemy. The outwork at No. 25 from its position would also imply its formation for a similar object connected with the dams in the canal and moat to the north of the city.

The north wall of Nineveh lies across the neck of the spur cropping from the undulations to the north, and extends from the north-east angle of the city to the Tigris, in a direction perfectly straight, of S. 55° W. from the true meridian. Its length is 7000 feet exactly; of which 2,333 feet is carried over the rising ground, the remainder falling with an easy decline to the margin of the Tigris, here, at the present time, so far as we can judge, in the same position as it held when the city was marked out. At the same distance of 2,333 feet, being precisely half way between the elevated structure on the ridge and the north-west angle of the city on the Tigris, is the position of a gateway with a road, at present, as perhaps in olden times, leading to the pass ascending the great mound of Koiyunjik. On the east of this

¹ No. 11 of the map.

gateway which, to distinguish it in the map, is named "the porch of Bulls," is an elevated circular mound covering some splendid specimens of colossal sculpture, homotaurs, and other sacred figures, that in their singular position, quite hid from view until frowning above you, occasion sensations which to transcribe would be at variance with topographical detail. From this point another 2,333 feet concludes the northern wall, here broken and much worn down by its contiguity to the river. Masses of stone embedded in the soil beyond the angle of the city, point to the dam (No. 28) that retained the water in the moat to the north. This wall, seen in section, has an uneven summit from being raised over the inequalities of the natural rock we have pointed out near No. 23, which numeral shows the position of the toothlike obstructions in the cut, for breaking the velocity of the current of the canal in its descent into the lower ground.

We now come to the west face of the city, which, according to our view, was originally washed by the Tigris.¹ From the north-west corner to a culminating point of the wall on the bed of the stream, north of the Koiyunjik mound, is 3,500 feet; its alignment for this extent being at *an accurate right angle* from the north wall we have just described. This portion is broken by several gaps, worn through by the footsteps of men and animals during centuries of progress, and its dimensions compared with the eastern wall are inferior and low. The area comprised within the angle of the walls and the embayment formed by the rising grounds of the spur, we have characterized before as originally a swamp; but after the erection of these ramparts as a defence against the river, it appears to have been appropriated as the quarter for the more stable buildings, perhaps those of the notables of the city, judging from the debris of edifices, and other signs within. The former forms only the northern of the three portions which comprise the western wall of Nineveh; for the great mounts of Koiyunjik and Nebbí Yúnus, covering the palaces and temples of its kings, occupy considerable spaces in the structure. The central portion is that extending south of the Khósr to the mound of Nebbí Yúnus in a line of S. 40° E. for 2,700 feet; and the southern or third, forms a slight curve, then evidently along a sweep of the river, to the south-west

¹ In the inscriptions this portion of the stream seems as if represented by . Colonel Rawlinson, however, cannot yet decide on the subject; but gives as more general terms for the Tigris, the Cuneiform equivalents  and  the *Hatukkar* and *Hatiggar* of English orthography, the *Tigris* of the Greeks, and the *Tigris* of our own geography.

angle of the city. This latter wall is 4000 feet long but of somewhat more irregular construction, being low and broken by gaps, as the rest are, converging at the same time towards the great eastern wall, which is separated only from its southern extremity by a transverse wall of 3000 feet, meeting it in a direction of S. 6° E.

In more general language the enceinte of Nineveh may be said to form an irregular triangle,¹ having its apex abruptly cut off to the south. The sides of this figure have a length respectively in the order described as follows,

	ft.
The East Wall	16,000
The North Wall	7,000
The West Wall, including space occupied by the great mounds of Koiyunjik and Nebbí Yúnus	13,600
The South Wall	3,000
Making a total circuit of	39,600

or 13,200 yards, equal to seven miles four furlongs of English statute measure; just *one-eighth* of the dimensions assigned to the city by Diodorus Siculus.²

The contained area of the quadrangle of Nineveh from the above measurements is 8,712,000 square yards or 1,800 English acres of land; and if to an inhabitant of a city be allotted fifty square yards in the computation of a census, the capital Nineveh would have accommodated a population of one hundred and seventy-four thousand souls only.³

But of the existing remains of Nineveh, the most remarkable and interesting are undoubtedly the great mounds, bearing at the present time, the appellations of Koiyunjik and Nebbí Yunús. These, as monuments of man's labour and decay, have towered above the plains of Assyria, perhaps in their present form, for twenty-five centuries of

¹ With more propriety it should be termed a trapezium.

² The fragments of Ctesias which Diodorus quotes would seem to be loose in every respect.

³ About a fourth only of the number computed by those who have considered the metaphorical enumeration followed by Jonah. See Goguet, *Origines des Loix*, &c., tome 3, quoted by Gibbon. We must, however, compare the prophet's implied census of the inhabitants with his Itinerary, and identify accordingly the whole district included within the four streams, specified in page 3 of the paper accompanying the general map, as comprehended in the prophet's designation of Nineveh.

time.¹ Their positions with respect to each other and to the north-west and south-west angles of the city will be observed to have been designed, for their centres on the alignment of the western wall are equidistant from one another and from the named points also, being, in fact, placed at each intermediate third of the entire length of the face of the capital then bordering on the Tigris. Koiyunjik² is the most considerable in extent of the two, and may be appropriately named the Acropolis of Nineveh, for the eminence bounded on three sides by the waters of the Khósr (led through the city into its old bed near the mill from the moat and canal at No. 24) must have been isolated from the surrounding edifices, while washed at the same time by the protecting current of the Tigris on the west, where the walls had openings to admit of the debouchure of the north-eastern stream.

The beds of these are well marked at the foot of Koiyunjik, and the purposes they fulfilled are as easily recognized on examination.³ The shape of Koiyunjik is that of an irregular oval, somewhat elongated at its north-eastern extremity; which, however, occupies the more elevated portion of the plain the eminence stands upon, though in itself inferior in height to the south-western extremity. This latter rises ninety-six feet above the Khósr, near its junction with the Tigris. Its sides, on the east and north particularly, are deeply furrowed by the rains of succeeding winters, forming broken ravines, at uncertain inter-

¹ Subsequent to the ruin of the city, Koiyunjik would appear to have been used occasionally as a defensive position in many of the wars which have waged between the Orientals and their western neighbours. Xenophon notices a castle on the site, as also Tacitus, (*Annal.* xii., 13). In the thirteenth century too, Abulfaraj and Bar-hebræus, the former in *Hist. Dynast.* p. 404, the latter in his *Chronicles*, p. 464, mention a "castellum" there.

² This term is the Turkish name at present given to the great mound, and is indifferently written either as كوينجىق or كويونجىق according to the orthography of Mr. Rassam, which, however, may be doubted. As a favorite resort of the shepherds and their flocks, قوينجىق "lamb" may be deemed more strictly the derivative of the modern name, especially as the mound is known by the appellation of Armúshiyeh to the Arabs. The term عروشه is of doubtful signification, but the root عرم has a latitude of interpretation, and may be applied to "variegated flocks" or "great embankments." These modern names, as far as we can see, carry, however, no weight with them for the identification of the more ancient names.

³ It must be remembered that the Khósr was shut out from its original channel further to the east on the building of the city. The lower portion adjoining the Tigris in its shape, offered however, we presume, a convenient ditch for the separation of Koiyunjik on the east, and hence the canal led to it from the north-eastern angle of the city enclosure.

vals, in the steep declivities which conduct, over debris of the superstructures, from its summit to the adjoining plain. The surface, in general flat, now exposes numerous mounds of loose earth, thrown up above its south-west extreme, and is dotted also with them in other parts. We ascend the pile, and find these hillocks being daily added to, by the excavated soil from deep trenches, which yawn in every direction beneath and around. A closer inspection shews man is the labourer; and, busy in his vocation, we see him in the bowels of the mound, running to and fro with the pick, the shovel, and the basket, endeavouring to rescue from oblivion the long-lost labour, and even the lost history of his fellow-man; for among the operations we discern an eminent palæographer,¹ regardless of mud below and rain above him, transcribing from the lapidary tablets which face the chambers and galleries excavated by the indefatigable Layard. Koijunjik has, in fact, through the exertions of the latter, proved one of the greatest repositories of Assyrian art, and its records, it is hoped, through the perseverance and skill of the former, will develop to us the economy of a people who were illustrious and great as a nation, at a period just within the horizon of our mental capacity of time. The palaces, temples, and sculptured galleries of the Ninevite kings, buried beneath their own ruins, and those of the superstructures of many succeeding dynasties in Koijunjik alone, cover in extent of surface about one hundred acres of ground, of which a small portion only has been thoroughly examined.²

Nebbi Yúnus, the other artificial tumulus within the enceinte of Nineveh, covers an area of about forty acres. It is of an irregular shape, but more precipitous and abrupt than Koijunjik, especially on its western face, which originally joined the wall of the city, though now

¹ Colonel Rawlinson was daily thus employed in a most inclement season: book in hand, sometimes seated in a swamp, sometimes protected only by an umbrella from the torrents coursing down from above, he persevered and succeeded in obtaining copies of all the legible tablets uncovered within the mounds both of Nineveh and Nimrúd. It was ludicrous and interesting indeed, to witness the shifts he was occasionally put to to obtain a glimpse of light upon a defaced and uncertain character of the inscriptions. His activity of mind and body in the pursuit of his favourite study in every situation, is certainly deserving of the success which the public and his numerous friends most cordially wish him.

² We insert for the benefit of the curious that Koijunjik contains about 14,500,000 tons of earth, and its neighbour, Nebbi Yúnus, 8,500,000. On the supposition, therefore, of 1000 men being able to excavate and remove 120,000 tons of earth annually, these artificial eminences would require respectively about 120 years and 54 years for their completion by this number of people. In their construction, women as well as men were employed by the despots of the day. This we learn from the inscriptions deciphered by Colonel Rawlinson.

separated from it by roads on the north and south. A deep ravine divides the surface, which is generally flat, into two portions ; the east one being used as a cemetery, by the inhabitants of a village occupying the summit of the western and larger portion ; on the north edge of which is a conspicuous white building, traditionally covering the last resting-place of the prophet Jonah.¹ The site, therefore, in Mahomedan eyes, is a sacred one, and hence the erection of the village adjoining, chiefly inhabited by Kurds, who are muleteers and cultivators of the flats around. As a necropolis it is also a favourite spot, from its propinquity to the shrine ; and the base of the mound is therefore thickly studded over with the last emblems accorded to humanity—the head and foot-stone that connect him with his mother earth. This it is that renders excavation of the tumulus so difficult ; but no one who passes can doubt but it conceals, like its neighbour Koiyunjik, a stately edifice of an Assyrian age,² and likely, from the sanctity attached to it at the present day, to have been a much-revered spot,³ even in the early times we are considering ; for, singularly enough, the later sects—even prejudiced Mahomedans—are not exempt from a certain credulity and veneration always attaching to mysterious personages, and to spots⁴ traditionally invested with interest, as the theatres of their pilgrimage and operations.

¹ The Christians deny that Jonah died in Nineveh, but acknowledge that a Christian church occupied the place of the present Mahomedan mosque and tomb, said to have been built over the former on the Mahomedan occupation. See Rich, ii, 32, in a foot note.

² Since this was penned, the Pacha of Mosul has opened the mound by the aid of convicts employed for the purpose. Two splendid bulls, much defaced, and some chambers formed of slabs bearing the Cuneiform legend, were exposed on my last visit in April of this year. The bulls are about nineteen feet high, contiguous to the so-called tomb of the prophet, and if anything, below the foundation of the edifice.

³ If Ninus really had a sepulchre in Nineveh, we are disposed to regard this tomb of Nebbi Yûnus as the mausoleum honoured with the title of "Busta Nini" by Ovid and by other writers, who, more or less conflicting in the circumstances of his burial, make the whole of Asia Minor, from Tarsus to Babylon, the scene of it. We shall allude to the subject again in the paper on Nimrud, the great pyramid of which being supposed by some to represent the real tomb.

⁴ On the outskirts of Mosul, on the opposite side to Nineveh, we have the recognized grave of Seth, the third son of Adam. The tomb is much revered by both Christians and Mahomedans of the district. Nebbi Allah Shyth, "Seth, the prophet of God," is the usual name and title uttered in speaking of him ; but are we to credit the tale of his burial here, or does the site mark the last resting-place of a pagan personage of a subsequent age and less direct lineage from the original Adam of our race ? Considering the extraordinary monuments of Assyria but lately revealed to us, we might indeed be justified in the expectation of meeting still older records on this soil ; for Ninus, in archaic relation to antediluvian Seth, is but as a youngster of the human race. See map, Sheet iii.

The peaked cone, surmounting the cupola of Nebbi Yûnus, can be seen from a considerable distance, and, stuccoed white, it glitters in the landscape as the most conspicuous object in Nineveh. Its peak was ascertained as 136 feet above the junction of the Khôsr with the Tigris, though the mound itself is believed to be of less elevation than Koïyunjik. Accuracy in this respect, surmounted as the mound is with houses, could not be expected, and, unfortunately, the constant rains we experienced so relaxed the cobwebs fitted horizontally in the telescopes of our theodolites, that angles of elevation could not be relied on; though those given cannot be far from the truth.

The above eminences exhibit the only vestiges that are in any way remarkable within the area of Nineveh. There are, however, some low mounds of debris accumulated north-west of Koïyunjik, which point out the situations of buildings; and, on the rising grounds to the east, here and there, may be traced the alignments of others just above the surface of the soil. They offer nothing of interest, and we agree in the opinion given by other travellers, that the enclosure never contained any vast connected pile of buildings, like our modern cities, but, on the contrary, exhibited spaces of garden, and occasionally plots of open ground spread over with tents, as may be seen at present within the enceinte of Baghdád. Under whatever dynasty, indeed, Assyria is viewed, we must always attach to its people inclinations favourable to nomadic life, consistent indeed with the aspect of the country, and their great origin as pastoral races. The love of wandering, moreover, must, as now, have made these families difficult of control; and hence, doubtless, the policy of fencing them around with fixed abodes soon became apparent to those who, phrenologically speaking, possessed the organs of government and power. We believe, indeed, that the disposition in the people to stray had originally as much to do with the construction of the enclosure before us as considerations of defence had: in the meantime we are deviating from our own path in the topography of Nineveh, which we resume with a short account of a spring in the central ditch, No. 13 of the map.

This pool, at the present time known by the Turkish name Demlamâjeh,¹ is situated in a recess of the west bank of the excavated channel. It appears to ooze from a stratum of limestone just showing below the superimposed conglomerate of the bank; and whether it has wept on unnoticed since the fall of the Assyrian monarchy or not, we leave others to determine. Tradition has, however, invested

¹ دملامچه corruption of Demlamâkeh, a term applied to a water oozing drop by drop. It is Turkish.

its waters, which are pure and wholesome, with remedial properties in various diseases, that have, doubtless, in this singular country, been handed down from age to age; and the grotto before it, supported by its humble pillars and neatly executed arch of a venerable appearance, clothe it also with the honours of age, even did not the singular custom of antiquity,¹ that of driving nails in the crevices of the stones, remain to our view at the present day: "as a nail sticketh fast between the joinings of the stones," is here indeed literally witnessed; for we have large nails, driven in to their heads, filling the crevices of every seam. Were the practice a modern one, as suggested by Rich,² nails of every period would be found embedded in the masonry, expressive of the benefits derived from the virtues of the water, for Rich regards them as sacred relics; but why the presiding nymph should be wooed by the hammer and the votive offering of a nail, as he supposes, we have yet to learn.³ We incline, therefore, to the belief that the arched masonry of the period was so far defective in the science of keying that the process of studding with iron nails was necessary to the firm union of the blocks in the formation of the arch; otherwise the nails would be found in conspicuous crevices only, and not, as they are, wedged around the entire seam.

The little faunt of Demlamájeh has, however, other attractions for the English traveller, nor can he read a name carved on the grotto there without sympathy and regret; sympathy for the bereaved lady so feelingly mentioned in the delightful pages of "Kurdistan and Nineveh," and regret that Claudius Rich, who, with a true antiquarian eye, so critically examined and ably wrote upon both Nineveh and Babylon, should not himself have been spared to witness the results of his foresight, achieved by Layard a few years later only. For the first detailed notices of these places we are certainly indebted to that eminent man, who, as a traveller, treated all subjects, whether geography, history, or antiquities, with an inherent skill that cannot fail of being appreciated by those who follow his foot-prints on the same soil. Nothing, indeed, is wanting in his descriptions; though he was but a passer-by; and for labour in detail, where he had opportunities of survey, he cannot be surpassed. Like the geologist,

¹ Ecclesiasticus xxvii. 3.

² Layard regards the arch as the work of a Greek or Roman age. We think otherwise, from the prevailing practice noticed in Ecclesiasticus, which would, we presume, refer it to a still earlier period.

³ Rich, in his "Kurdistan and Nineveh," deems these emblems expressive of a registered vow in the event of recovery from sickness.—Vol. II., page 34.

indeed, who predicts the existence of precious metals from observations of the soils, Rich, thirty years ago, presaged the existence of Assyrian monuments in the mines from whence they have been exhumed.¹

The prejudices of the Osmanli had, however, not then relaxed, or, from Rich's well known liberality and zeal, our museums would have been stored with Assyrian relics at the commencement of the present century. At that time all that we knew of either Nimrúd or Nineveh was from the pen and pencil of Rich, whose survey, engraved in the volumes edited by his widow, will be found as correct as the most diligent enthusiast can desire; indeed, were it not for the renewed inquiry into Assyrian subjects, the present survey we have the honour of submitting to the public might have been dispensed with, for its value chiefly consists in corroborating the fidelity of his positions; and otherwise, though quite unnecessary, stamping his narrative with the broad seal of truth. He was the first real labourer in Assyrian fields.









Before concluding we may be permitted a few words on the identity of the ruins we have so often traversed, and have attempted to delineate as they exist "in situ," opposite to Mosul, at the present time; for it appears to us that Layard, in remarking, "the evidence afforded by the examination of all the known ruins of Assyria further identifies Nimrúd with Nineveh, and that the former represents the original site of the city" (Vol. ii., pp. 245, 246, of *Nineveh and its Remains*), is in error. That the former was endowed with the name² as a part of the district of Nineveh, or as the capital of a subsequent date, we will not deny; but that it was "par excellence" the capital of Assyria from the earliest times we cannot subscribe to. In the disquisition upon giving a new locality for the capital of Nineveh in favour of Nimrúd, the eminent explorer and writer on Assyria has called in the whole of the surrounding ruins intermediate between the Tigris and the Zab, to aid in swelling the confined area of the latter to the rank and dignity of a metropolis! The same argument³ that has been adopted for Nimrúd in the same sense is surely applicable also to the larger quadrangle around Koiyunjik, which, besides

¹ We infer this from his rough notes and from his fragments, Cuneiform and other carefully preserved relics, though he nowhere directly asserts their existence. His journals are, indeed, only the results of observations, not of reflection, his death preventing his opinions being embodied with the former.

² We shall endeavour to explain this further when considering the position of Nimrúd in the paper accompanying its plan.

³ Itinerary and inferred census of population from the pages of *Jonah*.

traditionally bearing the actual name of Nineveh¹ (Ninua) for ages, is capable of containing all the Assyrian vestiges yet found at Nimrúd and its locality. The broad walls and noble water defences of the former appear to us, indeed, of more importance in a categorical inquiry of this nature, than all the historical accounts published of the capital since the flood.² These are more or less vague and conflicting, and mislead instead of instruct. They should, therefore, one and all be set aside in favour of ocular evidence, where, as in this instance, we have it; even if, from the earliest times, arbitrary opinion, founded on tradition, had not decided in fixing the Nineveh of the world. In opposition, therefore, to Ctesias and Diodorus,³ to Strabo and Ptolemy,⁴ we must be allowed to retain the capital where it is self-evident its founder established it. We cannot consent, indeed, to sell its birth-right for the mess of *flummery* the former⁵ two have presented us with, though even at the present day the Tigris is confounded with the Euphrates by half the population of the district. Xenophon, in the *Anabasis*, though he mentions not the name of Nineveh, makes the city in ruins opposite Mespila the capital of the kingdom of the

¹ The characters     represent the name in the Cuneiform writings of Assyria, equivalent to the Hebrew, נִינְוָה. The Septuagint writes the name Νινευί, Νινευη, and the ordinary Greek writings Νινος, as the form, while in Latin it is denominated Ninus. See Kitto, under *Nineveh*; and Colonel Rawlinson supplies     as the monogram for the city.

² The Khóer boundary, as the most accessible point, would require the bulk of the population for its defence. We shall refer again to this subject when considering the position of Nimrúd in the next paper.

³ These authors place it on the Euphrates, an egregious but common enough error, as we have before pointed out.

⁴ Nimrúd is evidently defined as the Nineveh of these geographers, and at the period they wrote it doubtless held the title, according to Eastern usage, after the destruction of the capital. Strabo's identifying the region as Calachene is conclusive, however, we think, of Nimrúd's not holding the *original* title of Nineveh, for it has been recognised by Colonel Rawlinson as the Kalkhu of the Cuneiform writings, and the Calah of Genesis x. As such, it was doubtless the principal city of Calachene, the name of the district in Strabo's time, and, from being the last inhabited, known also as the representative of the original Atur or Nineveh, its contemporary city from the first foundation of the monarchy there.

⁵ If Aristotle, Plutarch, Aulus Gellius, and Joseph Scaliger are correct in their estimate of the character and writings of Ctesias, his fragments should cease to be quoted as authority for anything. We believe the statements of the latter geographers, Strabo and Ptolemy, to apply exclusively to Nimrúd while it held rank as the capital of a later age. We shall consider the subject again in the description of Nimrúd.

Medes; at least, we presume so, from its extent in comparison with the neighbouring Larissa, which can be no other than Nimrúd, and the fact of its requiring the special interposition of the gods for its capture by the enemy. Xenophon, indeed, is nowhere so lax as any of the other ancient writers that have been quoted, and in geographical details he far excels them in perspicuity and acuteness. In the region we are considering, every foot of his masterly retreat is apparent, and if aught were wanting, either in distances or description, to recognize the whereabouts of the Greeks at the time of passing the Great Castle and city of the Medes, we have the very name of Mespila, by a simple transition of Oriental orthography, rendered in the modern one of Mosul.¹

Lastly, we have the tomb of Jonah erected on one of the principal mounds within the area of the city, bearing to this day the name of the capital to which his mission was especially ordained. Though his reputed death and burial here may not obtain sufficient credit to warrant its positive identity as Nineveh, still the name of Jonah itself in connexion at all with the desolate site before us, brought down from age to age in a country where habits, customs, and traditions are proverbially as unchangeable as the sun above, stamps it with a reputation that might otherwise be questionable. The name, however, has doubtless been applied to other ruins occupying contiguous positions, and, indeed, as we have said before, we consider the territory included between the Tigris and the Záb, south of the Khósr, as comprehended in the proper name.² The positions of Selamiyéh and Nimrúd, as being inhabited to a later date, would retain the name after the abandonment of the capital,³ and in this

¹ Mespila, or Μεσ-πύλαι, "central gates," &c., named, we presume, by the Greeks from being midway between the Persian Gulf, the Euxine, the Mediterranean, and the Caspian Seas. The term, after Alexander's conquest, soon became converted into Muspil and Musvil, to be further corrupted into the Arabised Mosul, after the Mahomedan conquest. *موصل* signifies "joining or connecting," and is equally applicable to a spot from whence emanated the diverging caravan routes that led to Persia, Mesopotamia, Syria, and Northern Asia Minor, in early times as in the present day, when we see it as the central mart which connects the traders of the surrounding countries in one common pursuit.

² In the same way as London and its environs are included under the same general term of London, when not necessary to particularize a single locality; but if we speak of the city of London, the words must be held as significative of the city's limits alone.

³ Many instances of this may be quoted; Seleucia retained the name Babylon long after the original Babylon was destroyed, and Baghdad, even at the present time, is named sometimes after the original Babel; at least, the episcopal chair of

way Yâkût, and other Arab geographers not over-critical in inquiry, became possessed of their knowledge of Assyrian sites, that is, by the simple traditions of a new people. These have dwindled to mere villages since the Arab geographers passed from the scene, and hence the name of Nineveh or Ninua again attaching to its primitive position in proximity to Mosul, which place in the present day even affords the patronymic of Mosulâwî, not only to its own inhabitants but to those of the villages at a considerable distance around; the country north of the Zâb at the same time receiving the title of Ardî Mosul, in much the same way as may be supposed the capital, Nineveh, gave its name to the identical district in olden time. The extent of the Nineveh of Jonah, its population, and much cattle, need not, therefore, alarm the greatest sceptic, though we must confess the dimensions given to the city by Diodorus Siculus,¹ to be as irreconcilable with truth as the most determined Munchausen of ancient or modern times could desire. We are, however, more inclined to attribute error to the stadia of his manuscript than culpability to himself or his informant, particularly as he gives a correct distance of seventy furlongs or stadia, when describing the flight of the rebels, as the interval between the mountains and the capital of Nineveh, a few pages further on.²

We now close this paper, with hope it may in some measure elucidate the map, on which every care has been bestowed to render it descriptive of the interesting spot. Our observations extend to Nineveh alone, as all connected with the modern Mosul³ will be

the Bishops of Babylon, after Seleucia was ruined, took root in Baghdad, and still stands, though in a tottering and disreputable state, as the seat of a bishop bearing the title of Babylon. Seleucia, too, gave its name to other places after it was abandoned, and of Eski Baghdâd, or "Old Baghdâd," we have a goodly assortment, though in these cases the name of Baghdad has returned to the original site; the "Old Baghdâd" being ruins of more modern positions, founded by caprice, or necessity, and again deserted for the original city. The modern Basrah too stands on the site of Abilêh, which name is lost and replaced by that of the city of Sindbad, now seen in ruins five miles west of the modern Basrah, bearing with the ignorant the name of Jamâ Ali only, that of part of a mosque, the single pile left erect there.

Instead of four hundred and eighty stadia, the circuit of the walls is but one-eighth, or sixty stadia.

² Compare Book, chap. i., 101, with page 121 of the same book and chapter, in the English translation of Booth.

³ With respect to it we quote the apt words of Sir Anthony Shirley, in Purchas, p. 1387 of the 2nd vol. After speaking of Nineveh, he adds: "within one English mile of it is a place called Mosul, a small thing, rather to be a witness of the other's mightiness and God's judgement, than of any fashion of magnificence in itself."

sufficiently explicit in the map itself, and any comments we have indulged in not bearing on the subject we have undertaken, it is hoped will be received as inserted only, to relieve the tedium of geographical detail. We have, however, to remark that the whole country contained in the plan is under cultivation, even to the summits of the walls of Nineveh and the eminences of Koiyunjik and Nebi Yunús, wherever the plough can furrow uninterrupted by the artificial obstructions of the ancient works. These fields and furrows have been excluded from the plan to render objects more distinct; but the reader himself can reflect how much the little implement of husbandry, in the action of centuries, has had to perform in reducing man's works to their present height, and what remains for it to effect ere the crumbled walls be swept to a level with the surface of the plain, which, to the west, between it and the Tigris, is mostly of comparatively recent sedimentary formations, added to annually by the detritus of structures worn down by the combined efforts of rain and the plough. That the walls which, after so great an interval of time, show such remnants, must have been originally of ample dimensions and strength, we cannot doubt, even if historical records were silent on the subject; and these relate, that four hundred thousand men were thrice defeated before the city was laid siege to; and then, to effect its capture, after an investment of two years, the rivers, at the interposition of the Gods, brought about what man had hitherto been unable to achieve.¹

To reconcile this part of the account, however, with modern appearances, we have only to picture to ourselves an unusual flood in the Tigris, with the dykes in possession of the enemy, and an extraordinary downfall of rain swelling the Khósr to such an extent as to break down its triple dams at No. 27, near the east and principal wall. The prophecy that "Nineveh could never be taken by force till the river became the city's enemy," would be easily fulfilled by their destruction, and the panic-stricken king, under the conviction that the oracle had been accomplished, must have at once abandoned his empire and his life. "Their memorial had perished

¹ Diodorus Siculus, book ii., chap. 2, makes the Euphrates the destroyer of the city. This is a confusion of names which we have endeavoured to point out as till common enough in the country. After great reflection in connection with the surface levels of the locality, we, however, conclude the Khósr, and not the Tigris, to have been chiefly instrumental in its ruin, the more so as the walls contiguous to the Tigris are in all respects, as regards the admission of the river within them, as perfect as ever they were. There is indeed, no trace of a rupture on the side of the Tigris which can be attributed to the effects of the stream.

with them," indeed, had not the literary acumen of Rawlinson been at hand to develop the wonderful discoveries of Layard. To the former, in anticipation of the approval of Government, we have inscribed the map of Nineveh.¹ Though but a small tribute, it is one of admiration for the physical and mental energy which, in the fields of Cuneiform and geographical inquiry, he has perseveringly displayed, and which we have been an eye-witness to for many years past.

Nimrúd and its topography forms the subject of the next paper to accompany Sheet II. of our maps. The limited time at our disposal would not admit of separate plans being made of the excavations at either place. The excellent work of Layard, however, supplies all deficiencies on this and every other subject that may be required for a full comprehension of the vestiges of Assyria.

TOPOGRAPHY OF NIMRÚD,

Illustrative of Sheet 2nd of the Vestiges of Assyria.

Though we have for consistency's sake lent our endeavours to maintain the capital of Assyria on the spot it has so long occupied, and have objected in the previous paper to the grounds on which Layard has essayed to transfer the dignities of the metropolis to this place, we quite concur in his general observations respecting Nimrúd, which, geographically considered, it is presumed held the second rank among Assyrian cities, and it is not unlikely that it attained a greater importance after the destruction of the original Nineveh; the position and religious character of its edifices rendering it, we infer, a favourite residence of the monarchs of Assyria. In Eastern wars, too, the destruction of the capital from the earliest times appears to have been the chief incentive to conquest; and, razed as the original Nineveh is stated to have been on its overthrow by the Medes, the remnant of its people would, after the excitement had passed away, naturally congregate in the neighbourhood of the sacred edifices, and around their altars endeavour to erect again a shelter for their wives and children, before settling down in their turn as a subjugated but protected race.

In the plenitude of power, and, indeed, while advancing towards that state, we may conclude that the Assyrians, as well as other nations ambitious of conquest, would first of all secure themselves from foreign invasion; additional grounds for placing the capital on the banks of the Khóser are thus furnished, as, protected as the

¹ Sheet 1st of the Vestiges of Assyria.

territory otherwise is by the Tigris, by the Záb, and by the hilly range of Maklúb defended again by the Gomei or Ghásir-Su, the north-western boundary, skirted only by the small rivulet, is by far the weakest point. Common prudence alone would, therefore, dictate the necessity of establishing the bulk of the population on the most accessible position. Hence the situation of Khorsabád at one extremity of the line, and Nineveh, the capital of the country, protected also by the Tigris, at the other. These, connected by a series of posts at dams situated at intervals along the Khór's course, in relation with the noble water-defences of the metropolis, by keeping the Khór at a high elevation, must have answered admirably as a bulwark against approach from the assailable quarter; and, for these reasons also we must regard the locality of Nimrúd as peculiarly adapted to the situation of a provincial town in which might be established the cherished emblems of religion, the temples necessary to them, and the palaces essential to either the magnificence or recreations of the Assyrian kings; for protected by contiguous rapid streams, but a small force was needed to watch over the security of the position where tranquillity invited to the observances of the faith, as well as to the enjoyments incidental to existence in a semi-barbarous condition of society.

That Nimrúd, as the representative of Nineveh, remained inhabited to the last as the protected asylum of its scattered people there can, perhaps, be little doubt, for the broad face of the country speaks of its abandonment by the Tigris at a period long subsequent to its foundation; and the excavated canal brought with such diligence and ingenuity from the distant Záb, supplies a conjectural page in its history which, affirmative of its sanctity as a cherished position, points to its occupation as a city so long as the tunnel and canal on the west bank of the Záb remained open and intact; and, as was the custom in ancient as well as in modern times, it doubtless bore also the name of its great archetype, Nineveh. We may date its decline and final desertion from the time the former was severed from the aqueduct by an encroachment of the river. When this event happened we cannot ascertain, for history is silent; but identified as Nimrúd is with the Larissa¹ of Xenophon's *Anabasis*, we learn that it was deserted at least twenty-two centuries back, and, perhaps, for a considerable period previous to his passage through the country. The account he gives of its capture during an eclipse of the sun has reference doubtless to its degradation on the fall of the Assyrian monarchy. The recital shows, however, that the current of events

¹ Book III.

connected with these interesting ruins had not then stagnated in the dark abyss of time.

Notwithstanding the additional materials placed at our disposal by the recent discoveries, we must ever remain dependent in a great measure on conjecture for the comparative antiquity of Assyrian sites. Even with the correct interpretation of the Assyrian records, after years of learned and patient investigation by Rawlinson and others, we may not be nearer the truth in this respect, for the tablets appear to be records more of individual prowess than of historical or geographical detail, though among them there are legends of great value, doubtless, to both sciences. In considering the relative antiquity of several cities comprised within the limits of an original kingdom like Assyria genealogical lists would seem to be the surest guide for the attainment of correct results. These, however, can only be regarded as approximate landmarks to the key of inquiry, not as the "open, sesame" of truth itself; for after all they may serve only to recognize the restorer of a palace, or perhaps the ingenious decorator of an apartment that existed before, perhaps, without "the foreign aid of ornament," even previous, indeed, to the invention of letters or of sculpture. Certainly the elaborate execution displayed at Nimrūd in the construction and fittings of the galleries and apartments, in the finished detail of costume and arms, and in the carving of its many-lined slabs of masonry, all point to an era of refinement, both in art and science, that could not have pertained to the dawn of Assyrian existence, but must have been the creations of long study, founded on system, during years of prosperity and repose.¹ The surest test of antiquity must be sought for, therefore, in the earlier hieratic forms of sculpture, which we believe can be traced in the coarse stone and colossal bulls² of Koijunjik and Khorsabad, perhaps covering still ruder forms of a more primitive type, in the same way as the creations of a subsequent period, when higher art prevailed, are found displacing the works of a past generation.

From all we saw, indeed, in our hasty survey of the Nimrūd palaces, we are inclined to regard them as the last monuments of Assyrian skill when she had reached her zenith of prosperity, and her people the acmé of comprehensiveness, as mental endowments were

¹ Layard notices of one of his early discoveries that it surpasses those of Khorsabad.—See "Nineveh and its Remains," Vol. I., chap. ii., p. 41; and again in page 63 he adds of others, "although the relief was lower yet the outline was, perhaps, more careful and true than those of Khorsabad," and "this description is apparently characteristic of the earliest palatial sculptures of Nimrūd: see page 64.

² Some of these bear only a few letters or a name for an inscription.

¹ Verses 26 and 27. "Let us create man in our own image and after our likeness." The artists of every age have, perhaps, put a too literal interpretation on the text.

² We have the figure on a cylinder bearing the Phœnician inscription,

FARḡYI — KPRḡYUḤ P O Ṭ and see a similar effigy on the wall of a mummy pit in Egypt, described under the head of "Burial," in the Biblical Cyclopædia of Kitto. It also abounds on the cylinders of Babylonia and Assyria in connection with symbols of Sabæism, the sacred tree and bull of Assyria; these cylinders, however, we regard as of an era far later than others on which the figure of Ormuzd is not seen.

revealed to us in the subterranean passages of Koiyunjik, which we believe to have been the abode of the primitive hierarchy of Assyria. These colossal homotaurs, which seem to have presided over the early mythology of Assyria in the absence of Ormuzd himself, winged as they are express care and protection, while their human features imply Godhead in the more exalted faculties of the mind.

Thus intellectually formed, the fabricators of such works could not remain in ignorance of a still higher order of creation, apart from the globe they occupied. The firmament above them, by day and night, exhibited a splendour over which they had no control, but which their reason led them to view as replete with omens, good and evil, to mankind. The result of study and contemplation soon exhibited the latter in the divinations and sorceries the Chaldeans were so celebrated for; and to the former may be traced that profound system of astronomy, which, above all other sciences, leads the mind into regions where it is lost in wonder and amazement at its own diminutiveness. In the science, then but imperfectly developed, men could only conceive a Great Cause in invisible action, and took to worshipping it through its most prominent and mysterious works, the sun, moon, stars, air, earth, fire, water, and the winds.¹

The imagination would, however, still intrude the portrait of an invisible origin, and as in the first chapter of Genesis we are told, "Man was made after God's own image," it is not surprising that the idea became a prevalent one with the whole human family who thought on the subject at all, and that the representations of the deity should appear anew divested of their more brutal forms and elevated high above the earthly groups in the picture; the diminished proportions, at the same time, conveying a rude perspective idea² of "His habitation in infinity and space, while the winged circle surrounding the figure not inaptly illustrated His attributes of ubiquity and eternity." Compared, indeed, with existing emblems of holy and evil personages, where the limbs and features are painted with daguerreotype exactness, we may deem the Assyrian Ormuzd as the most simple and pure of the class.³

But under whatever phase we view Nimród, whether in relation

¹ Herodotus, in Clio, Art. CXXXX.

² With our extended ideas at the present day, a single eye invested with a halo of glory, relict as it is of pagan ages, serves to typify the all-seeing but invisible origin of nature.

³ In the East, there is a vast number of miserable edifices boasting the title of Christian churches, whose exterior aspects are the least offensive parts about

to its claim to remote antiquity, or as a sacred position of a later Assyrian period—it is full of interest. In the latter sense, we are inclined to regard it as a seat of Magism, where the occult sciences, blended with faint notions of a pure deism, were earliest fostered, and disseminated in a corrupt form, which subsequently provoked and led to the reformation of Zoroaster. Birds hovering over, and bearing away the entrails of the dead in the Nimrúd sculptures, seem to savour of Magian funereal observances, in much the same way as Ormuzd is represented presiding over the living groups. In the generality of the Nimrúd sculptures, indeed, we were struck with the disproportion between them and the more colossal forms of the monster groups of Koiyunjik and Khorsabad; while those of the human class at the former place, invariably wear a marked superiority in size, as well as in elaborate execution, over similar personages in the mounds of the latter places. To us this seemed particularly illustrative of the march of mind *in the progress of time*, as claiming for man an intellectual position in advance of the animal creation, while, at the same time, it withdrew from Nimrúd pretensions to a very remote antiquity.¹ Its tablets too exhibit a copiousness of legend quite in accordance with accumulated events. They show, moreover, that composition and petral calligraphy excelled in its schools, and that operative talent was acquired, in the ratio demanded by the increasing pedigree and deeds of a long line of kings.

On the other hand, however, the claims of Nimrúd to be regarded them; for within they are full of unseemly pictures executed in the very lowest style of painting, for art we cannot call it. Curzon, in his "Monasteries of the Levant," gives a ludicrous account of some of these *sculptures*, which disgrace human nature, however low the intellect may be; and on this soil from whence so many noble monuments have been exhumed, the Christian traveller has to deplore the low standard of the Christian mind, which, in the present day, can reverence effigies of holy personages compared with which the idols of the Assyrians are singularly superior, both in ideal expression and human design.





¹ Whether these horned human bulls, lions, &c., received in Assyria, at any time, divine honours or not, is a subject involved in some obscurity; on cylinders from Assyria and Babylonia, the bull is often an attendant, or, indeed, made the seat or throne of Jehovah. In later times, when the veil had been raised which obscured the baseness of human reason, these monsters may have been degraded to a subordinate place in the temples, preparatory to their exclusion altogether. That they were deified in Egypt, and countries bordering on the Mediterranean, there can be no doubt, from numerous scriptural notices of the worship; and that their frontal decorations served to typify sovereignty and power, if not divinity, in the personages who adopted them, we have full warrant of from the pages of Daniel and the coins of the Macedonian period. Alexander the Great is always thus decorated and, to the present day, among Orientals, is scarcely known by any other title than ذو القرنين *Zu'l Kurain*, "the two-horned" Majesty.

as of a synchronous era with the ruins opposite Mosul now denominated Nineveh, must not be set aside, for they are cogent, and time perhaps, will pronounce them conclusive, though we cannot agree with Layard that "Nimrūd represents *the original* site of the city,"¹ for reasons we have specified both in this and the preceding paper on the capital. Actuated by a fair spirit of inquiry, we express dissent on what may be considered pure geographical grounds alone. We have no desire indeed to upset theories founded on the ample experience and erudition which the able illustrator of Assyrian monuments has brought to bear upon a subject intricate and bewildering in a superlative degree; and our hints, therefore, it is hoped, will be regarded only in the light of suggestions placed by the wayside, to smoothen and not obstruct the progress of others in the great road to truth. That other *great cities of the day* were established at a cotemporary period with Nineveh, is evident from Bible relation, confirmed by existing ruins on the spot represented by Sheet III. of our "Vestiges of Assyria," all of which have been more or less explored by the enterprising Layard, who, after careful analytical reasoning "in situ," has pronounced the early structures of Nimrūd as deserving a first rank in the classification of human fabrics in this part of Asia, if not in the world.² A synthetical conclusion in some measure verified by Rawlinson, who from recent investigations is inclined, with little hesitation, to identify Nimrūd with the Calah of our Bible and Chalkh (Χαλκ) of the Septuagint.³

We now call attention to the second sheet of the vestiges of the Assyria, in which we have endeavoured to delineate the features of the country where Nimrūd or Calah once flourished, as a considerable city of that region, if not the actual seat of dominion. Layard, with much reason, ascribes to Assyria two periods or dynasties, in which the more recent monuments of its people were separated from the earliest, perhaps by an interval of many centuries. Adopting this view, we must refer the statements of the geographers Strabo and Ptolemy as to the position of Nineveh, to the later period, when Nimrūd stood alone as the "Omega" of the Ninevite kings, and possessed the name in virtue of its singular position, after the earlier cities had ceased to exist. The former places it between the Lycus

¹ Nineveh and its Remains, Vol. ii., p. 246.


² Nineveh and its Remains, Vol. ii., p. 225.

³ Genesis x. 11. The  of the Jews, and Colonel Rawlinson recognises the cognate form of Kalkhu    in the Cuneiform inscriptions.

and the Tigris,¹ the latter on the first of these streams. In a strict sense we cannot demur at either relation, for though actually bordering on the Tigris, there is no doubt but that Nimrúd latterly derived its water from the Záb or Lycus by means of a great aqueduct, ingeniously conducted from that stream to the south-east angle of the city where it borders on the Shor Derreh, a petty rivulet but boisterous winter torrent, having its source in the isolated hill of Aynes-safra to the north-eastward. The embankments of the great canal alluded to, where unbroken by the river, are traceable in their whole extent to the Záb; and in a subsequent age, when the famous tunnel at Negúb² had been left dry by the waywardness of that stream, we find an underground tunnel or Káriz³ connecting Nimrúd with the waters of the Gházr-Su. We have spoken of this work in the description of the general sheet of Assyria. At present the statement serves to shew the important position held by Nimrúd during the latter dynasties of Assyria, for though almost within arrow's flight of the Tigris, even after its abandonment by that river, the construction of a broad canal twenty-five miles in extent, through a hard pebbly soil, was deemed indispensable to the requirements of its population.⁴

At the present time Nimrúd stands abandoned alike by the Tigris and the Záb, and the viscous current of the Shor Derreh rivulet, mingled as it is with bitumen oozing from thermal springs in its bed, seems only to mock its desertion by the sweeter streams, as it ejects itself over the surface of the plain beyond. The Tigris at the present day in the low season never approaches nearer to the ruins than a mile and a quarter, while the Záb, since the destruction of the canal, pursues its course at six miles from its walls. That its palaces and halls, when erected were, like the original Nineveh, begirt by pleasant waters, there can be no question; nor is great invention requisite to depict the constant struggle which man had with the element in the remote ages,

¹ It is not at all improbable but that Ptolemy's position has no reference whatever to Nimrúd, but to the Nineveh of our map, opposite to the modern Mósul.

² This is referred to in the Cuneiform inscription by the characters  Negúb is a modern Arab name, literally نقوب "a hole" or "perforation."

³ کازیز Persian compound, the name of an underground tunnel for conducting a stream to lower grounds, where the intermediate land is of a higher elevation.

⁴ See also general paper on this head, where the work is deemed one of a religious design.

to keep it subordinate to the objects he had designed. We have, as we have previously mentioned, a conjectural page written on the face of the valley before us; everywhere the progress of the Tigris is well marked, from the period when its waters first embraced this early temple of the human race, to their divorce and subsequent attachment to the rugged outline of the precipices bounding the valley of the river to the west. Traces of its career in the remoter ages are still discernible in the abraded cliffs on which the edifices of Nimrúd stand, as also in the shallow indenture at their base, once occupied by the ample stream, but now almost obliterated by the plough. It seems probable, indeed, that the valley of the Tigris here, as well as in the neighbourhood of Nineveh, was more confined at the period we speak of, and that the same causes¹ have acted in a greater degree to widen it to its present extent. Deeper beds, occupying intermediate positions between the eastern boundary of the valley and the present channel, mark also the Tigris's course in a mediæval period. That named Serát al 'bu Debbán² by the modern occupants, bears unmistakeable evidence of the wayward character of the current which doubtless caused at the same time so much anxiety in the minds of a free people, for in the progress of the stream westward, they must have felt bereaved of their principal defence. Hence, doubtless, the construction of the great dam Awaiyeh³ across the channel of the Tigris, the remains of which, still the terror of raft-men, have given rise to many ludicrous traditions, and formed a subject for exaggeration even with European travellers.⁴ In the low season the Tigris tumbles and roars over the massive masonry it is composed of; and, on a calm night, can be heard at many miles' distance, moaning as it were a requiem over departed grandeur. We witness here, indeed, the vanity of human labors from the beginning, and require no written tablets to chronicle the ever-constant action of nature which time has portrayed with a truthfulness that will endure; the traditions of the country ascribe the erection of the dam both to Nimrúd and Darius, but in the last name

¹ Fluid pressure on the inferior or southern curves, perhaps assisted by earthquakes.

² سراط البودبان "The prowler's way," an expressive metonymism common to the Arabs.

³ آوابي "Sound," "the rumbler." It is also called occasionally the "Sakhr Nimrúd," or "Nimrúd's rocks."

⁴ The quaint old Tavernier describes the rapid here with a fall of twenty feet; and in our English translation of his voyages it is still further improved upon by the rendering of twenty fathoms. See his Voyages.

we may, perhaps, discern a Median occupation of the city, long after its first foundation, when such a work became necessary to confine the receding waters to the eastern cliffs, in order that the town should not be insulated from so essential an article. Appearances on the west bank of the river lead us to conclude that the work was of some extent, and if we are not mistaken, a portion of it will be found extending below the soil as far as a tongue from the rocky ridges lying to the W.N.W.¹ The opening of the great canal from the Záb, dates we presume, from the partial or total destruction of this work.

We need not enlarge on the geological features of the tract contained in the second sheet of the vestiges of Assyria. They are in most respects similar to those in the locality of Nineveh, excepting that the higher ridges west of Mosul, which join the Sinjar groups of rocks, abut, with a less easy decline, on the valley of the Tigris in the neighbourhood of the Záb. The ridges on either side of this stream, indeed, from the Kara Chokh² range to Sinjar, appear mere continuations; the higher portions separated only in the line of their direction during the process of cooling, into vertical laminæ, while the lower undulations thrown off from them are mere bubbles cropping forth on the surface, when the ridges themselves are depressed beneath the superstrata, generally of limestone and conglomerate, over the whole region. The Tigris, as far as Nimrúd, is upheld on its southern or inferior slope by one of these laminæ, which, acting as a great barrier, terminates at Mishrák, a rocky elevation or cape surmounted by three conspicuous peaks when viewed from the north.³ Here, however, the opposition ceases, and both it and the Záb have availed themselves of the outlet afforded by one of these deep depressions, to break through the superficial bubbles of the crust, and, after many tortuous checks, unite to form one grand stream, coursing silently, but deep, through comparatively plain lands, in a more steady course towards Babylonia.

The effect of this antagonism, has, however, operated to widen the valley of the river in the struggle of ages; and like a great serpent, the more scope it has obtained, the wider it has spread its convolutions. These, sinuous enough in the low season, are extended over the greater part of the valley in the spring, filling up the

¹ We had not the means of crossing the river with our instruments to prove what is advanced, nor would time admit of the delay in the construction of rafts.

² The name of a high mount on the summit of a ridge, crossing the plain between the Lower and Upper Záb.

³ This will be better seen on Sheet III.

deserted beds; and in periods of flood the waters, like a vast sea, even reach the deserted abodes which, centuries ago, they both furnished and protected. Like the victims of Tantalus' cup, a besieged people in Nimrúd may, indeed, have perished from thirst in sight of the fluid which, a few months or even days later, inundation brought to their very doors. At these times the fine crops in the valley are swept away, and their owners, with the little household furniture they can snatch, accompanied by their families and cattle, beat a precipitate retreat. Security is afforded them on the wrecks of the Assyrian palaces. In the autumn and early spring, as represented the map, the valley of the Tigris consequently presents a broken surface. Broad isolated fields, lying either cultivated or fallow, contrast prettily with the excavated hollows left by the receding river. These exhibit pools of water interspersed with a dark scrub or broom, the natural product of old watercourses; while the rich waving green of the crops, enamelled with every variety of wild flower, now under the light of a spring sun, now in the shade of a passing cloud, glittering with the early dew or the passing drops of an April shower, combine to render Nimrúd in these months a favorite locality with most men. With the nomad and other lovers of Nature, modern or ancient, it must always have held a two-fold estimation. The mud hamlets of Naifeh-Deráwîsh¹ and Nimrúd, as winter abodes of the present occupants, infested with wild cats, crawling with vermin, and crumbling under the wretchedness of construction, shew, however, that man alone disfigures a scene where nature has ever been bountiful, and where he himself, branded as a "barbarian," once stood pre-eminent and conspicuous enough to excite the admiration of states deeming themselves civilized only after thirty centuries of progress. If "barbarian" then, how shall we designate him now? For the ethical speculator, indeed, an ample and instructive field is open on the banks of the Tigris; though we will not deny a similar theatre exists on the shores of the Thames also. Philosophers, sentimentalists, utilitarians, "et hoc genus omne," have drunk alike of the former as of the latter, yet now, except in Australia and in other remote isles of Oceania, we can no

¹ دراویس Deráwîsh: this name has been thought by many a Mahomedan corruption of Darius or Dáráyûsh. It is not unlikely, considering that Dárá or Darius is traditionally invested with the tales and works of the neighbourhood as well as his great prototype Nimrúd. Both names, indeed, may have a patent signification, though used as mere meaningless epithets in the mouths of ignorant wanderers of the present day; for, perhaps, they are the only traces left in the minds of men of the two powerful dynasties in which Nimrúd flourished; in the latter as the chief, in the former as a secondary city.

where find man so attached to the zero of human happiness, which he has sunk to from the enjoyment of a full measure of prosperity and power. Ambitious only of freedom, he is content in his rags, and will not barter them for the silk and ermine of a shackled existence; though covetous enough of the latter if able to possess himself of them by

“ The good old rule . . . the simple plan,
That they should take who have the power;
And they should keep who can.”

We have again wandered a little from the subject in hand, but Bedouin-like, our disposition is to stray from the direct path to scan the expanse around; and in the absence of other interesting objects, we may be excused plucking an inviting flower, so long as we delay not to extract it by the roots. We will now quit Layard's hut in the plan, and direct our steps eastwards, along the margin of the old bed of the river, past the mouldering walls of the mud hamlet that has usurped the name of the “mighty hunter Nimrod,” pertaining to the long-buried vestiges of the splendid halls beyond; our guide is the high pyramid marked 7 in the plan.¹ Before we reach it, however, we are sensible of having stumbled into a hollow way,² filled from a ravine and winter torrent coming from near Tel Agúb or Yakúb, north of the city. Absorbed as we are in the dark piles before us, we heed not the swamp we are wading through, further than to observe, on coming to the margin of the ruins, that the conglomerate of the tertiary rocks bounding the east edge of the valley has not only been scarped artificially, but is also well worn by the water-attrition of a long period. The conclusion at once is, that the Tigris itself flowed here³ at a very remote time, and this is further confirmed by the continuation of the bed, and a well marked water-line or beach, as far south as Tel Chíméh.⁴ This bed now receives only the winter contributions from the ravine north, and the Shor Derreh rivulet south, of the city, which latter, when Nimród was in a flourishing condition, we are led to believe, had its debouchure lower down, on the line of the embankment of the great canal, where we see the opening⁵ below the isolated undulation south of the eastern suburba. This isolated piece of rock

¹ Sheet II. of the Vestiges of Assyria.

² No. 6 of the plan.

³ No. 6 of the plan.

⁴ Refer to the general plan for this artificial pile. Its distance would not admit of including it in the large scale of Sheet II.

⁵ Marked *f* on the plan.

soil¹ appears, indeed, from the debris of buildings upon it, and from its singular conformation, to have been connected originally with the rock undulations on which the city was first designed; the great embayment that we now see separating them, having been formed by the combined back-water action or eddies of the Tigris, and the pressure and percolations from the Shor Derreh in the lapse of ages. The walls of the city, broken and incomplete to the south, look certainly as if their terminations had been swept away by the floods. North of Nimrúd the character of the country is the same; unless separated by rain-courses it averages a height of twenty and thirty feet above the valley of the river where it abuts on it, but more distant undulations rise to an elevation of eighty and ninety feet, culminating in still higher points, about five and a half miles north of Selámiyeh.

Breaking through the crops or tertiary bubbles here bordering the valley to the east, the chief stream is the Shor Derreh rivulet, emanating from springs in the hill of Mar Daniel. At seasons it is quite dry in the lower part, owing to the water being turned on to the upper plains for irrigation, but in the winter and spring the torrents come down with great violence. The same may be said of the next, an inferior rill² coming from the plains and undulations north of Tel Yakúb. They are both lost in the valley of the Tigris, at points separated only by a mile and a half of undulating land.

The tongue at the end of this has been selected for the site of Nimrúd, the second, as we deem, in rank of the Assyrian cities. Compared with the capital Nineveh, it is insignificant in size, though equal in interest, as the mine from whence England, by the exertions of Layard, has obtained her principal monuments of a people previously looming as shadows only in the mist of history. What remains of the enceinte of Nimrúd occupies an area of a little less than a thousand acres. The northern half of the city only appears to have been protected by a regular wall, which is still traceable; but unlike similar structures at Nineveh, they could not have been remarkable for great altitude or dimensions. The noble water-defences of the capital are wanting too to this city, it being surrounded on the north side by a mere moat of no great extent, apparently fed by the damming up of the Tel Yakúb ravine to the north, the waters of which being subsequently led into the ditch at the north-east angle of the city, thus connecting them with the Shor Derreh stream on the east, and the Tigris to the west, when it flowed

¹ Marked C on the plan.

² Rich calls it Karadash ravine. We could get no fixed name for it, it having as many aliases as a police protégé in England.

past the platform of the palaces, then, as we infer from appearances, erected on the margin of that stream. The more prominent and regular walls of the city are as near as possible in the direction of the true cardinal points; the northern one having an outwork or projecting buttress¹ just midway of its length. Gates appear to have been situated at uncertain intervals in the wall. They will be best seen by reference to the plan, as also will the broken and irregular alignments of the city to the south, a great part of which is seemingly wanting, being, as we suppose, swept away by the combined action of the rivulet and the river as described in the preceding paragraph. As at Nineveh, the interior displays no evidence of buildings beyond a reddish hue of pulverized brick imparted to the surface of the undulations, which are higher than the walls beyond, though in the north-west angle we thought the alignments of houses were traceable in the soil. The plough has, however, done its work here also, for the mansions of rich and poor, if they ever existed within, are alike levelled, nor are the stately temples of its rulers left unfurrowed; the coulter and share, aided by the atmosphere, having, indeed, atomized every structure exposed to their action; and where the cypress should stand as the fitter emblem of their sepulture beneath, we find its place usurped by the waving richness of spring crops.

Though now occupying the extreme south-west corner of Nimrúd, the platform enshrining the temples and halls of its kings appears anciently to have held a more central position with regard to the surrounding town, then extending, as we have surmised, much further to the south. Be this as it may, the platform surrounds all that is now attractive on the spot, and once contained the trophies that now adorn the Assyrian halls of our Museum. The four palaces from whence these were extracted occupy the west face and south-east corner of this platform, which is an irregular parallelogram in shape, the north side being somewhat shorter than the southern; it encloses an area of sixty acres. Layard has named the interior palaces, the north-west, the central, the south-west, and south-east edifices, which nomenclature we have retained as appropriate.² Encircled by a much worn parapet rising at present a few feet above the platform within, they form of themselves a separate enclosure inside the city wall. On the north-west corner of this, where it is connected with the latter, is erected the Great Pyramid that looms so conspicuously over the

¹ See description of the Great Pyramid.

² Deep ravines separate the apartments on the west and south face of the enclosure. The torrents of centuries, coursing from the summit of the mounds to the plain, have in a great measure defined their extent.

Assyrian plains. It rises 133 feet above the low autumnal level of the Tigris, and about 60 feet above the platform of the palaces.¹ Recent excavations have shown the pile as based upon a rectangular plinth of brickwork, aligned in the direction of the cardinal points, and faced with finely cut blocks of limestone, having recesses in the sides at regular intervals, and a semicircular bastion projecting in the centre of the north wall, much in the same way as the buttress described in the enceinte of the city. Above the base it is composed of sun-dried bricks; its apex, worn down as it is at present, rose doubtless to a much greater elevation. The crumbled debris scattered over the sides has not only entombed the base in the wear of centuries, but has nearly obliterated its pyramidal form, still faintly traceable in the rounded outline of the mass. No remains have yet been found within this singular structure, although evidently designed for a special purpose and not raised as the creation of fancy alone. Shut out as the Nimrūd palaces are from the other Assyrian positions in the neighbourhood by intervening undulations of some altitude, we are disposed to view its erection simply as a tower of communication, whence alarm or religious observances might be either signalled or seen from a distance around. The whole plain to the foot of the mountains is distinctly visible on a clear day from its summit, but a few feet lower down all is hid by the contiguous land. It is only reasonable, therefore, to refer its elevation to a specific object such as this, without seeking to identify it with the "Busta Nini," placed by ancient writers in several localities of Asia Minor.² From the absence

¹ These elevations may be a little in error, from the causes noted in the previous paper. Rich made it 144½ feet, but he had not instruments with him for any accurate measurements. Rich's "Kurdistan and Nineveh," vol. II., chap. xviii., p. 132.

² Were Ninus entombed in Nineveh at all, we should perhaps seek to identify the site of his mausoleum with that venerated at present as the last resting-place of the prophet Jonah, from the simple fact of the first Christian fathers not recognizing the grave as that of the missionary of Nineveh. Yet doubtless a grave existed there, and we may infer a more than common grave, from the fixed and unswerving bigotry of all Orientals in receiving, in this respect, what has traditionally descended from age to age; nor is it likely that early Mahomedans, keen in inquiry on matters of this nature, and doubly prejudiced, as they were, against Christian edifices, would blindly accept a Christian chapel, perhaps decorated with the hated emblems of their faith, as the sepulchre of Jonah, unless a tomb invested with necrological honours from a remote period rendered the spot, in their eyes, worthy of memorial and preservation. Rich, who took great interest in such subjects, spent much time in inquiry during a residence in the neighbourhood, and he states that the Christians distinctly deny Jonah's burial on this spot (Kurdistan and Nineveh, Vol. II., chap. xiii., p. 32); and in this

of such a monument in the capital, while we witness similar ones on a smaller scale spread over the whole country, we are inclined to view it as a religious erection of a later dynasty at a time when the practice of the early Persians, "who made their altars the high places of earth o'er-gazing mountains," first came into vogue. The sacred fire blazing from its summit might have conveyed the signal of sacrifice or prayer to all similar positions around, answering in the latter respect to the minarets of Islamism in our own day. Recent excavations have shown too that it served for other national purposes; it having borne on its south face a grand tablet commemorative of a series of events recorded on a single stone, perhaps of thirty tons in weight. Thrown down from its position, it now lies in fragments at the foot of the pile between the north-west palace and an adjoining apartment, which, to distinguish it, is named "the Temple of Mars" in the plan before us. But whatever cause may be assigned as the origin of this singular monument, it has served as an attractive object on the plains of Assyria for many ages past. As a ruin it excited the attention of Layard and Rich in the present century, as it did that of Xenophon upwards of three hundred years before the birth of Christ. He names it Larissa; and from his description it would appear that the masonry of the base, so lately exposed again, was then conspicuous, though it could scarcely have been more perfect than it is now. Nimrūd, indeed, in every phase of its singular history, is pregnant with interest to the European, whether in connection with the footprints of the

respect most authors agree with them, placing his tomb at Gath-hepher and Tyre in Palestine, the pseudo-Epiphanius even allotting a portion of the cemetery of Cenezous to the reception of the prophet's body.—See "De Vitis Proph." and the Paschal Chron., quoted by Kitto. The Christians had, however, a sort of hermitage on the site of the present tomb. This hermitage, dedicated only to Jonah, in Christian veneration for his mission to Nineveh, may have been erected near the principal feature of the Necropolis, generally, from the sanctity attached to the dead, the last memorial of a city. Its position on this might be regarded in keeping with the character of an edifice raised by austere piety and enthusiasm; and, on the Mahomedan invasion, a pardonable deceit connecting the chapel and the grave, while it preserved both from ruin, may have originated and perpetuated an error which renders the site a "noli me tangere" position to the spade of the antiquarian. Could we convince the 'Ulema of such an error, and point out the prophet's grave to them in Palestine, Islam credulity, partaking more of superstition than respect, might deem the work a charitable one which separated the corrupt relics of their race from the remains of a heathen and proscribed people; a little money would then put us in possession of the mysterious contents of the mound. Since the above was written we heard of operations having been commenced by the Turks themselves, and on our way to England examined some colossal specimens of Assyrian sculpture on a level with the foundations of the supposed tomb of the prophet.

indomitable Ten Thousand, or in relation to its own previous career of glory and renown. Invested with local traditions, the long winter night of the Arab is enlivened too by their relation, and though he is not over-critical in regard to the truth of the narrative, he is as much interested in his subject as the most ardent philosopher of our schools.

In the superficial sketch represented by our plan there is little else attractive in the ruins of Nimrúd. The palaces, buried in the interior platform, have been minutely described in Layard's interesting pages. We saw them under the disadvantages attendant on the preservation of the sculptures; for they had been but partially cleared again of the rubbish heaped over them on Layard's departure. We saw enough, however, to satisfy an ample curiosity, and only regretted that the brief time at our disposal from other active duties, would not admit of detailed plans being made of the interior on a large scale. These would require a long residence on the spot, and, moreover, to effect them, the halls and temples must be laid bare again, at an expense perhaps incommensurate with the object in view. The eastern suburb appears to have been formed after the modelling of the original town. Its mounds¹ on the south side higher than the platform of Nimrúd, though lower than the great pyramid, would seem to cover other monuments of the period; and, indeed, were excavations undertaken on a grander scale, under an able superintendent, we should doubtless derive as much material as archæologists could ever expect to possess, or, indeed, as the nation at large could desire.

There are, moreover, other positions contiguous to Nimrúd which would yield similar relics; one of which, under the modern name of Selámíyeh, that of an Arab village of an early Mahomedan era, occupies a portion of Sheet II. of our vestiges of Assyria. Now only a miserable hamlet, it was of considerable importance, even in the better days of Islam, the Oriental geographers, in a confused manner, identifying the site with Athúr or Assyria.²

But without these notices, we could not fail to recognize the crumbled and almost obliterated walls as the structures of a synchronous period with Nimrúd and Nineveh. Their remains enclose an area, at present, of four hundred and ten acres; but part of the city, at no time of very great extent, has been swept away by the Tigris, or severed from its precipitous position by the shock

¹ About eighty-three feet above the level of the plain. I am led to believe these eminences were somehow connected with the canal from the Záb. Perhaps the water was raised by machines erected here for the supply of the western palaces, on the great dam being ruptured by the flood.

² See Yakút, in *M'ajm al Buldán*; and Abulfeda, under the head of *سلامية*.

of an earthquake. The alignments of the south-west face, now on the edge of the cliffs, washed at times by the Tigris, extended further to the west while the city was in existence, and the north-west wall, meeting it from a northerly direction, formed a right angle overlooking the stream. This angle, and all that stood upon it, has long since disappeared in the flood; but under the debris of more recent edifices, forming high mounds in the interior, we might be certain of meeting with Assyrian monuments, as we have done at other places.¹ The soil, indeed, cannot be scraped even without exposing long-covered buildings, the materials of which are prominent also in the sections of the ravines passing through the city. Similar ravines confine the city on the north and south; the former having warm springs, like the Shor Derreh, in its bed, that emit petroleum, and, at the same time, aid other sources in tainting the otherwise pure air of the locality with fumes of sulphuretted hydrogen, which, in a dense state of the atmosphere, lie sufficiently low to infect the whole plain. An alkaline clay, much prized in the baths of Mosul and by the Arab females of the neighbourhood, abounds too in the banks of this ravine.

We have no more to offer on the subject of Nimrúd, and, indeed, fear having already said too much. The present aspect of the spot has, however, suggested ideas, which, though in some measure foreign to our subject, we have ventured to pen, to relieve the dryness of geographical narrative; and in the accompanying plan have endeavoured to delineate the features of the locality as faithfully as we are able. To the enterprising explorer of the region, as a competent judge of its merits, and as a small token of the interest we have taken in his career and discoveries for the last twelve years, we inscribe Sheet II.² of the *Vestiges of Assyria*, feeling assured of the approval of the Government of India, under whose authority the survey was made during the last spring.

NARRATIVE OF THE NINEVEH SURVEY.

WE have now done with the more-known vestiges of ancient Assyria, and those who require other detailed features of the region included in Sheet III. must follow us in the narrative of the survey, where occasional particulars of its modern aspect will be found inter-

¹ A fragment of a fine cylinder, bearing a genealogical inscription, was obtained at Selamiyeh. Cuneiform-stamped bricks, with a new form of name, and a stone with crouching lions, of a somewhat rude type, procured from the village, bespeak too a mine of antiquities, not yet examined.

² On a plane scale of one thousand feet to an inch.

dispersed among the notices of our daily proceedings. These are recorded only as an estimate of the pains taken to render the work as perfect as possible in the short interim allotted to our labours.

The East India Company, ever the liberal patrons of science, at the request of the trustees of our national museum caused the survey to be made. More pressing duties, however, prevented its accomplishment at an earlier period than the last spring, when we set out from Baghdad on our errand, with the instruments and party necessary to the undertaking. We were at a loss, however, for an assistant, until Dr. Hyslop, with the sanction of Colonel Rawlinson, generously offered his aid for the purpose; and, through his active exertions in the field, we are mainly indebted to the completion of the survey, for our time was very limited indeed. To his zeal in the department, the Flora of the Nineveh region will be known. We will not forestall his observations on this head, but acknowledge his ready compliance with our views with the thanks it deserves.

To ascertain the meridian distance of the region we were proceeding to from Baghdad, it was necessary to make a caravan journey by easy stages, to give full effect to the performance of the chronometers, two of which, excellent instruments by Dent, we had with us. They acted admirably on the way, and gave results when compared with a carefully adjusted dead-reckoning from day to day, as creditable to their own excellence as corroborative of the care with which they had been carried from stage to stage. The daily traverses made on the road, with the astronomical observations taken, are embodied in the Appendix. It will suffice here to record that the great minaret of Mosul, in latitude $36^{\circ} 20' 16''$ north, has a meridian distance of $1^{\circ} 16' 52''$ west of Baghdad; a quantity which cannot be far from the truth. The other observations on the journey will form the basis of another map, that of the great military road between the modern capitals of Assyria and Írák, now under construction, and continued as leisure will permit. We therefore abandon the records of this part of our journey for a time, and open our note book at the Upper Záb, which stream we reached in thirteen days from Baghdad.

Here we experienced the first great delay we had met with, for it occupied from 2 P.M. on the preceding day until the morning of the next to cross the stream by the frail and diminutive rafts worked by the villagers of the two Kellaks, who are a mixed people of Yezidis and Boht Kúrds, cantankerous enough in the exercise of their vocations as ferrymen across the stream.

Such delay the traveller experiences on the great post road of Turkey, and, if all else were satisfactory, this fact alone augurs ill of

the administration. Though we did not get dinner until midnight, we must cease grumbling, to admire the pretty scene open to us at sunrise, such as is presented by gentle pastures, sloping to the banks of the stream, and covered with the flocks and first lamblings of the season, frisking around the black tents of the shepherds, which dot the emerald carpet spread by nature on the banks of the Záb. Ascending the tongue lying between it and the Gházz-Su we see the great plain of Shemámek, bounded by the Kara-chokh hills, dotted with the tumuli of former races, on the left of the Záb. To the west, beyond the meeting of the Gházz, the view is interrupted by the ridges from the Jebel Maklúb and Áyn-es-Safra, shutting out the great Nineveh plain. We observe, however, a conical pile, just capping above the ridge, and are told it is Keremlis, a structure of an unknown age and people. This glimpse of a past generation increases an anxiety for a nearer inspection; but we descend into the glen of the Gházz by an easy decline, and find ourselves shut out from all beyond it. Here an ancient tumulus, called Tel Aswad by the Arabs, and Minkabi by Rich, points perhaps to the position of a keep that anciently guarded the ford of the Gházz, which stream becomes at times a fractious torrent, quite impassable to caravans. When we passed it was brawling over pebbly beds in different channels.

We had to make a long detour in search of the most shallow places, and some amusing incidents were derived from the alarm of our Baghdadís, as, with their clothes drawn up to the chin, they endeavoured to stem the torrent. An hour brought us on the level of the ridges to the west, and the Nineveh plain, its habitations, and singular tumuli, were at once spread out before us; but the capital still lay hid behind the undulations which border the Tigris to the east. Here the green meadows of the insecure tracts are exchanged for the ridge and furrow peculiarities of tilled land, interspersed with the hamlets of a comparatively civilised people, which, pleasing enough in the prospects they hold out to the owners, afford at this season but a dull track for the traveller, especially when softened by the moisture of constant rains. The pace is thus a heavy one to the city, and is much lengthened, for the upper way has to be kept near the base of the isolated hill of Áyn-es-Safra, which has on its summit the remains of a Christian church, dedicated to Mar Daniel, a venerable pastor of an early Christian period. The hill is sometimes known by the latter name, but the former, "the bile fountain," is its real appellation, derived from a sulphur spring at its base, which is said to possess remedial properties in hepatic derangements of the system. Birtullah is next passed, which we are informed is a Christian village. This boasts of a stone

house, that had been a few years ago the pretty mansion of a Mosul pasha; and an oblong building of stone, on the east of the hamlet, is pointed out as the church dedicated to the Virgin, who with the Syrians, Jacobites, and Chaldean Catholics in all this tract, has even a higher veneration than is accorded to her by similar sects in the West. But we must pass on, as a drizzling rain is urging us to shelter ourselves in the city, and besides shuts out the features in the landscape around. We shall, however, pass them again; in the meantime we ascend the undulations near the hamlet Koják, and, for the first time, see the Tigris again, since quitting it at Baghdad. On the west of it the domes and minarets of Mosul are dimly visible through a drizzling mist, and prostrate before us are the walls of the celebrated city whose history but a short time ago lay buried in the piles on either hand. We sweep past the white tomb, which bears the name of the missionary of Nineveh, erected on the summit of one of them; and, ere the reverie we have fallen into is well commenced, it is broken again by the clattering of our cattle's feet over the boards of the floating bridge which connects the living city with the dead. Thus, fairly in the muddy streets of Mosul, we add to the bustle and animation which prevails, even on such a miserable wet day. We were, however, soon housed in the comfortable room of the lady¹ whose hospitality is so generously dispensed at Mosul, and at her table were introduced to two of the members² of the commission sent to explore the antiquities of Mesopotamia by the government of France. Through the zeal of Colonel Rawlinson, and the activity of our friend Layard, these learned savans will, we fear, find themselves forestalled. In the evening we inspected the gold mask, vases, gold earrings, necklace, and other curious relics daily obtained from Koiyunjik, as well as a vast amount of written tablets, lying stored for transmission to England. There was also a gold coin of Tiberius Cæsar, found near a tomb, a relic, doubtless, of Roman occupation.

For the three subsequent days we were prisoners, as it were, in Mosul. It rained incessantly day and night, and though nothing could be attempted in the field, our route from Baghdad was well calculated and protracted within doors. With a limited time only, it was necessary to do something, and on March 12th we accordingly moved out, in defiance of the wet, and pitched our camp in the swamp at the foot of the Koiyunjik mound. Colonel Rawlinson had joined us the day before, on a tour of inspection of the work now in progress by excavating parties. The 13th, however, gave promise of amendment in the

¹ Mrs. Rassam.

² Mesars, Fresnel and Oppert.

weather, and, as soon as the ground was fairly dry, the base for future operations was measured, and piles, where needed for triangulation, were erected in the neighbourhood. Angles too, were taken at the principal points, and the heights of the mounds of Nebi Yúnus and Koiyunjik ascertained.

The next day, being Sunday, the people rested, but we were compelled to proceed with the construction of the map, or, with the short time at our disposal, coupled with the wet weather, we should never complete the work in hand. The latitude of our principal position was well ascertained to-day, by the sun's favouring us for awhile, and the azimuths for meridian values were procured also. Thus we had fairly commenced; and while our labours were in progress on and around the mound, the French artists attached to M. Fresnel's party were occupied in sketching the sculptures.

March 15. Daybreak. We were on the mound of Koiyunjik, and managed to procure the first round of good angles, it being a brilliant clear morning. These enabled ten principal positions to be calculated and plotted on the map, and by the time these were finished, the hour was convenient for corroborating the latitude of the previous day. This differed but one second from that of yesterday, and was thus far satisfactory. While this was in operation, the French consul, M. Place, made a visit to the camp from Khorsabad, which he is still excavating with but little success. Colonel Rawlinson had, however, gone to visit the pasha, and in the afternoon we traced in the whole of the western wall of Nineveh, south of the Khósr, measuring it and its curves with a chain the whole way. From its contour it is evident the Tigris once flowed along it, into the position it now holds south of the city.

March 16. The great mound of Koiyunjik was measured around the base with the chain. The bed of a stream to the north, and the present channel of the Khósr to the east, show that it was encircled by a stream of water, and appearances suggest its having been led in from the north-east angle of the city wall. There is a dried-up well near the mill of Armushíyeh, where the stream seems to have bifurcated in olden times. This work was placed on the map in the forenoon, and the latitude was again ascertained, but 4" less than yesterday. In the afternoon the northern alignment of the walls of Nineveh were traced in their rectangular form, and the debris of edifices within marks the principal ones as having existed there. Visited the north gateway, which we designated "the porch of Bulls." The mound on its eastern side has been opened by Layard, and the interior exposes a magnificent sight to those entering suddenly from without, for colossal bulls of an excellent form, with human heads crowned with the

peculiar tiara of Koiyunjik, stand in grim and stately majesty in the depth of the caverns of the wall. These are unfinished, as if the sculptor had suddenly dropped his chisel and fled in alarm. Most of our party were inclined to take the same course, and, certainly, an indescribable feeling of awe seems to creep over one while contemplating the groups in the mysterious position they occupy. Our Arabs christened them "Jemas," or "Buffaloes," being the animals they are acquainted with as most resembling them in size. From this position the wall was carried over the natural rock ridges of the country; and a little beyond the highest part we observed the spur to have been cut through to form a moat for the protection of the north side of the city, in connection with the works of a similar kind on the east face. The survey to-day was completed as far as the Khósr's passage through the east wall, the height of which was ascertained as given in the general sketch. Returning to the camp along the Khósr's course we suddenly came upon a party of young girls, who had selected a nook of the stream to bathe in out of the direction of the usual roads. Like water nymphs, some dived, while others hid themselves, as they thought, from view, by assuming a crouching attitude with their hands concealing the face, like the ostrich imagining itself hidden when itself blind to exterior objects around. It is evident they had not anticipated the prying eye of the surveyor so close to them, for their clothes were at a distance and could not be reached without a greater exposure, so they quietly maintained their attitude, and the laughing of those swimming in the water told of the enjoyment afforded by the discomfiture of their companions. It was a pretty sight, however, and the water streaming from their long jetty hair down their fair and supple figures, glistening wet in the burning sun, offered a feature of modern Naiads such as is seldom seen, and, moreover, sadly deficient in the human groups represented in the ancient halls in their vicinity. Those Assyrians, we suspect, were a jealous and crusty race, or they would have favoured us with a few full-length specimens of their "womankind."

March 17. Operations were continued around the mound of Nebi Yúnus, and its entire circumference measured with the chain, to the amusement of the villagers who inhabit the modern buildings contiguous to the tomb of Jonah. They offered, however, no molestation; and a loquacious "Syed," after assuring us on his own authority that Nineveh in reality stood here, volunteered a mass of information quite foreign to that sought; but he pointed out an old course of the Khósr, contiguous to the west wall of Nineveh, which we subsequently traced to the deserted bridge of three arches stand-

ing on the plain; showing that this rivulet changed its course to its present outlet into the Tigris not very long ago. After breakfasting at the camp and placing the morning's work upon paper, we proceeded to the east wall, south of the Khóser, where we left off yesterday, and traced it to-day as far as the conspicuous mounds which rise high above the wall where cut through by the Keremalis road. Here parties were employed extracting the finely-cut blocks of stone which seem to form the base of the mural defences of Nineveh. These bear mostly a Cuneiform legend of a line or two only. The examination of the various fosses that defended the capital, occupied the afternoon. They are certainly well designed for their purpose, and when the dams were properly attended to must have surrounded the capital with a triple belt of water in this part, or, when necessary, isolated it altogether from the contiguous country, in the midst of a large lake. Other stations were taken up to-day on the hill of Arbachiyeh for extending the triangulation. We had from this a full view of the plain as far as Khorsabad. The shady green slopes of the ancient tumuli contrasted with the lively verdure of the fields, and the white tomb and mud structures of the present population, in a remarkable and pretty manner, rendering the several objects very distinct in the telescopes of our theodolites, though we experienced much difficulty in naming them for angular values from the stupidity of our guides. On our return, as night set in, we suddenly missed one of our party, as if he had been spirited away. We scurried over the plain and ascended the dykes in every direction without success; and while bewildered and alarmed at his abrupt disappearance at that hour, he stood at our feet in the grey dusk and silence of evening as if by enchantment. We had forgotten the little grotto of Demlamájeh and the pure water of Thisbe's fountain commemorated by Rich. Our friend, however, had not, and being thirsty after the day's fatigue, he had dropped suddenly into the deep trench where it exists, unknown to the party preceding him, and, to our relief, as suddenly emerged again when we were in real alarm for his safety. The night threatened to be a wet one, and the clouds, accumulating in heavy masses on the Kurdistan hills, augured ill for our operations on the morrow. We found on our arrival at the tents a company of dancing boys preparing for our amusement, but being able to dispense with the disgusting performances of this class of Turkish hybrids, they were dismissed, much to the chagrin of themselves and their native admirers.

March 18. The circuit of the ancient city was completed by measuring the walls in the south-east quarter, to the dam, the remains

of which are yet visible in the bed of the Tigris, on the south of the city. Yaremjeh, an ancient pile, was visited and its position ascertained from angles on its summit. These, too, extend our triangulation to the east and south-east. The pile itself has been washed by the Tigris many centuries back, and may, indeed, occasionally, in periods of inundation, still stand in the flood. Half of it has been swept away, exposing a section in which pottery and large limestone slabs form alternate strata with about eight feet of earth. The artificial portion is quite distinct from the marl and loam formation of the original cliff it reposes on, and puzzled us much in conjectures relative to its construction and use. Rich says the natives regard it as the "potteries of Nineveh," suggested to them, doubtless, by the quantity of urns embedded in the soil, which, however, led us to conclude its origin was owing to the use of the site during a long period as a Necropolis for the dead, as at present. The top is covered with graves and tombs, and a village of the name stands on the neck connecting it with the cliff, formed by the wash of the Tigris in a remote period. The margin of the river, its islands and sand-banks, were traced on our way back to camp.

March 19. The storm that had been impending the last twenty-four hours burst on us last night, and before morning our camp and the village of Armushíyeh were as isolated positions in a "Slough of Despond." The heavy squalls threatened to blow the tent down, and it required all our ingenuity to sleep within the compass of an umbrella spread out to shelter us from the drippings from the roof. It was impossible to map in such a damp atmosphere. We, therefore, betook ourselves to the saddle, and the day partially clearing enabled us to transfer the northern plain, with its villages and river face, to the map. On this many edifices doubtless stood in an Assyrian age; for the present villages of Bá'-Aowíreh, Beysán, Reshídíyeh, Sherif-khán, and Gubbeh¹ are known to have relics of the times thickly spread in the soil on which they are built. The monastery of Mar Georgíz or Jorjez stands at a distance, like a castellated mansion of the Crusade era, on an ancient tumulus; and the portion of a quadrangle a little south of it, near the elevated ridges, points to an Assyrian position half swept off by the floods. The mound at Sherif-khan, or Sheri Khan as it is now corrupted, has proved to be a temple of Sennacherib's, and the remains of a fine canal on the east of it would seem formerly to have led the waters of the Tigris to Nineveh after it was abandoned by the stream. A fine cylinder,

قبة - شریف خان - رشیدیة - بیسان - باعوریا¹

some valuable tablets, and other curious trifles, have been found here, but no sculptures that we know of.

We were caught in a heavy thunder-storm, and had to take shelter in the village of Beysan, where we were invited into a smoke-begrimed hovel, destitute of conveniences of every kind. It was evident the inmates cared for nothing but mere animal existence; and as we are by no means particular, we lit our pipes and listened to the conversation of the groups which soon assembled around. A Baghdad pundit astonished the community with his tales, fully believed by the ignorant and unwashed villagers of this district. A Suni himself, his sarcasms were particularly levelled against the Shíahs, whom he accused of every crime against God and man, confounding them in his category of infidels with the singular classes who form the population of Reshidíyeh and Sheríf-khán. These villagers are of the "Ila Iláhi" persuasion, or, as they are named here, Cheragh Sunderáns, or "extinguishers of light," from their religious ceremonies being mysteriously conducted in the dark, and hence are attributed to them the orgies which are said to have been enacted on the festivals of Venus, both in Greece and Babylonia. The license that is said to pertain amongst them we are not prepared to deny; we believe it, however, to be much exaggerated by those not admitted to their observances, which exclude all other sects. They are an inoffensive people, and, while tenacious of the intrusion of others on their belief, they readily enough cloak their true religion by the profession of Mahomedanism, perhaps dreading the persecutions which they have been too often subjected to. We shall allude to them again presently, and in the mean time hasten back to our camp, having been debarred visiting their villages by the furious squall which lasted for two hours, in which hailstones formed of transparent crystals of ice on the outside, had, as a nucleus, a pellet of snow within. We had never witnessed them of such a size, the largest which we measured being an inch and a half in diameter. Our horses, exposed as they were, became frantic with the pelting they received, and tried hard to break away; one, indeed, succeeded in doing so, and scoured through the swampy loam of the plain as if wild with torture and affright.

The next day was one of pitiless rain, accompanied by heavy gusts of wind; and, as nothing could be accomplished in furtherance of the survey, we devoted it to exploring in the bowels of Koiyunjik, in the vaults and temples of which we were, in some measure, sheltered from the down-pour above, though our progress was, rat-like, through the drains below. We were greatly entertained, however, with the

scenes opened to our view. The galleries from hall to hall, tunnelled out by Layard, exhibit sculptured bas-reliefs on all sides. We see the mode of transporting the colossal bulls from place to place by the Assyrians, and the order of march of their armies, in which the various corps are distinguished by peculiar equipments of arms and dress. Descriptive scenery of the country passed through is detailed with a minute regard to local features, and the animal and vegetable productions are delineated on the shores, or in the rivers and seas adjacent to the line of march. Here are crabs, fish, and tortoises; land and aquatic birds, and a variety of trees and shrubs, either spread on the plain, or covering the sides of the hill paths, in the branches of which are perched the nests and younglings of the feathered tribe, craving for food, or essaying a flight on their own account, in the true fashion of nature. The entrances to the halls are guarded by colossal bulls, and watched over by various demi-gods in the Assyrian mythology, of which the biped merman or mermaid is the most genteel, habited as it is in a scaly robe, terminating in a fin-tailed skirt of great elegance and propriety of curve. In the king's apartment we have the monarch occupying the state chair, surrounded by regal emblems, among which the tent, chariot, and umbrella are conspicuous. He wears the peculiar tiara of the Koijunjik sovereigns, something resembling the head of the Persian of the present day. Before him his chamberlain is offering gifts, while captives are kneeling in supplication, emblematic of his power in life and death. Then are displayed a long string of prisoners, and the spoils of war, attended both by horse and foot, among whom is observed a cart drawn by oxen, bearing sacks of plunder, whereon are seated tender women, not wanting in maternal solicitude, though absorbed in the contemplated horrors of the fate awaiting them. Consolation appears to be derived from the kisses bestowed on the infants in their arms, and we envy while we admire the mind of the Assyrian sculptor, who, amid the stirring scenes he has portrayed, has not forgotten the emotions which characterised humanity, even in the fiercer ages of war and blood. Other females follow on foot behind, and are distinguished from eunuchs by their loose robes and long hair, the latter being habited in girdles, and conspicuous by elaborate bushiness of tensure, though the faces of both are alike smooth and undignified. Next are camels laden with booty, attended by an armed escort. Then follow the regular troops; those helmeted and plumed, bearing a lance, sword, and dagger, comprise the heavy-armed legions, in advance of the archers and slingers, both of which bodies are faithfully represented by their weapons, and by a lighter dress and gait on the march. The siege operations against a doomed city are next shown on a centre

panel ; the ladders are placed against the wall, and some who have ascended are hurled headlong from the battlements, while torches, stones, and other missiles, are discharged from the works on those below, with the intention of destroying the engines which are being pushed up an inclined plane, in contiguity to the walls, so that the people concealed within can undermine while protected from the enemy. There is the "testudo," serving as a shield before the archers, to render their aim more sure and deadly than it would otherwise be. Similar operations are designed on the walls of another apartment, which perhaps was dedicated to Victory. The entrance is by a narrow way, flanked with the portraits of two hideous griffin-headed monsters, menacing with a mace in one hand and a short dagger in the other, preceded by a human figure with extended arms, as if denouncing vengeance against the rebellious subjects of the great king. Here the besieged city has fallen, and the punishment of the refractory inhabitants is witnessed in the impalements and slaughter going on around. Women and children are flying by a postern door for safety in the neighbouring glens, and the whole is, perhaps, as true a picture of Assyrian government as can be desired. The much-disfigured remains of two somewhat diminutive elephants are not far removed from this hall. From their high position in the mound, we suspect them to have originally occupied a loftier post in the edifices of Koiyunjik, and their disfiguration seems also to imply their exposure for a great length of time. We think them creations of an age subsequent to that of the temples adjoining, from the above surmises coupled with the appearance of an inferiority both in design and execution, when compared with the majestic forms of similar animals at no great distance to the north of them : we mean those of the colossal homotaurs, in the great "hall of bulls." Though defaced at present, the attitude and proportions of these display majesty and dominion in no common degree, and arranged as they are in stern array in the dark caverns of Koiyunjik, closely attended by the castigating and lion-crushing figure of the Assyrian Hercules, we confess to a feeling which partook of mingled admiration and alarm, though not usually taken aback by such or any other prodigies. We were somehow impressed with the idea that the presiding genius of the temple would momentarily issue from the dark labyrinths beyond, and demand the reason of our intrusion. Our flesh crept indeed at the thought of the forty stripes save one, which might be inflicted by the sentence of a "baker's dozen" from a lictor, armed with a tribracheated weapon such as he grasps.¹

¹ He is armed with a "cat o'three tails;" an instrument squared upon to suit modern ideas for the maintenance of discipline.

Certainly as works of art they are fine creations of mind and chisel, and we are at no loss to conceive the illiterate multitudes of that day prostrating themselves before images like these, when we see the Christian community of the present time reverencing the puerile productions of the most degraded art, as displayed on the walls of the churches in the immediate neighbourhood,¹ and, indeed, in all parts of the East. The chambers and galleries of Koiyunjik that have been opened, exhibit also a mass of records in the Cuneiform character, both separate and attached to the sculptures; and will doubtless yield more, if properly excavated. We have an idea that other works of a still more primitive age lie entombed beneath the floors of the present apartments, which we thought were considerably above the base of the mound. Not a third of this large pile has yet been systematically examined, and we shall soon have to deplore the wreck of the sculptures already exposed, for calcined as they are, from the effects of fire, they must moulder and fall from the positions they occupy; nor will they bear removal from the walls.

March 21 was devoted to investigating the positions on the west of the river, but we had some difficulty in getting there, owing to the flooded state of the Khósr and Tigris in the last three days. The former we forded, with the water up to our saddle-flaps, and the latter was crossed in the ferry-boat, after much delay, owing to the rapidity of the current. The bridge, warped over to the western shore, now floated useless, in a sheltered position alongside the houses of Mosul. In the ferry-boats horses and men are promiscuously jumbled at much risk, particularly when one of the former may be viciously disposed, which happened in this case. To keep the peace, however, water had to be sprinkled among them, and, in a short time, when the splashing of the oars and the shouting commenced, in order to extort "bakshish"² from the passengers, their vice had subsided in alarm, at their own position on the moving flood. We were struck at the number of dumb people employed as ferrymen in Mosul, and, for our own part, could have wished the proportion still greater. It would have saved the pressure on the tympanum, which pained us greatly, while subject to the din occasioned by the shouts and anathemas that were bandied about by the mob; but we found ourselves at last on the other side,

¹ None can look upon the daubs hung up in the monastery of Mar Jorjíz, or in other similar edifices, without painful evidence of the low standard of the Christian mind here.

² An Arabicised Persian word from بخشیدن "to bestow"? It is in common use all over Egypt, Syria, and other parts of Asia Minor, where it implies "largeess."

and proceeded to the great minaret of the city. Through the civility of Syed Mustafa, the holy personage in charge of the mosque, we were allowed to ascend the lofty column, which overlooks the whole plain to the base of the mountains, and beyond the Záb also. Nimrúd and the various positions were clearly in view, and we had the gratification of obtaining a good round of angles, which corroborated every position we had independently determined. The mulla's people gave us all the information we desired. Our proceedings, however, furnished scope for speculation in the townspeople below ; some thought we were looking for a position to plant guns upon against the town, which it is thought we are not long hence to occupy ; while others turned over the idea of the ruined mosque being required for a Christian church, when that event should take place ; it having been the site of one, we believe, before the Mahomedan invasion of the country. The present building was raised by Noor-ed-din, in the 755th year of the Hejrah. The double spiral staircase is still in good repair, but the column itself is somewhat bent, and shaky in appearance. The architecture displays the neat and compact brickwork of most of the older Saracenic buildings, in fine preservation for its age.¹ Our next proceeding was to stroll carelessly through the northern quarter of the town, and it being a Sunday afternoon, we derived some pleasure from the appearance of the gay groups of Christian ladies and children, dressed in every variety of colour, seated in the green grass which overspreads the open part of Mosul, from a little north-east of the great central mosque to the walls on the north. The men, in black turbans, were congregated in knots at a distance beyond. Their amusements were not, however, derived from conversation alone ; for we observed a passing bottle and heads alternately thrown back contribute a little to the exhilaration of the parties, though there were no gross exhibitions to offend. We were saluted respectfully, in passing onwards to the Básh-Tábiyeh,² a modern pile of some strength and elevation, forming the north-east angle of the Mosul walls. This is said to be built on the foundations of the old monastery of Mar Gabriel, a Christian edifice of early times. It is washed by the Tigris when high, and stands seventy-five feet above the cliffs, near which are some sulphur springs, called 'Ayn-al-Kabrit,³ bordering the stream. Básh-Tábiyeh is in some repute as a dungeon of more than ordinary strength and depth. We did not test it by a descent into its vaults, but passed gradually onwards, along the ram-

¹ Upwards of five centuries.

² Turkish, signifying "chief bastion ;" باش طابيه

³ عين الكبريت Arabic.

parts of the town, to the Sinjâr gate,¹ every bastion of which, and indeed around the whole town, was duly added to the map in the evening. The wall is a simple looped curtain, of no great strength, supported by irregular semilunar bastions, varying in size, having a ditch, on an average of twenty feet in depth by fifty broad, beyond it. The positions of the principal tombs and public mosques were also carefully ascertained, as well as those of the gates on all sides of the city. The pasha's private residence, and the barracks for the artillery, stand on the margin of the Tigris, to the south-east of the walls, and the arsenal, or Tóp-Kháneh,² intermediate between them and the gateway called Bábet-Tópe,³ or "Gate of the Gun," near the water entrance to the town. Some little distance east of the Tóp-Kháneh is the venerated mosque of Khidhr Elyás, one of the many buildings dedicated to the prophet of that name distributed over the Mahomedan empire.⁴ To the west again is the tomb of antediluvian Seth, or that of some one who has usurped the honours of his name and burial. Nebi Allah Shyth,⁵ "Seth, the prophet of God," is the title given him by all sects, and, from the concourse of people visiting the shrine, it is one of more than ordinary sanctity. These tombs, and the public buildings as above enumerated, south-east of the town, are very picturesque objects at a distance, but a nearer approach shews the former surrounded by the huts and tents of the miserable population of the suburbs; and the distant beauty of the pasha's residence and barracks is dispelled by the want of regularity in the design of the wings, which appear to have been pitched upon the main buildings as circumstances suggested the necessity for their construction. Yet, we believe, they were actually planned as they stand. Taste, however, is purely conventional in Turkey, whether as regards architecture or costume, individual convenience being more consulted than elegance of design; and in the cut of "inexpressibles" they have, in our opinion, the advantage of us in both respects. There is a tolerable market beyond the walls, on this side of the town, and the bazaars within are well supplied with fruits and grain, both of which are plentiful and cheap at all times. The houses are superior to those of Baghdad, inasmuch as they are

¹ باب السنجار Báb-es-sinjâr.

² طوب خانه Turkish.

³ باب الطوب Compound Arabic and Turkish.

⁴ It is known also as the Jámá-al-ahhmar, or "red mosque," though its snow-white appearance belies its name. جامع الأحمر

⁵ نبي الله شيث Arabic.

built of limestone and a coarse gypsum, abounding at no great distance. The streets are not however to our taste, being narrow, irregular, and cobbled with a huge pebble, most inconvenient to the feet of both horse and foot, especially after heavy rains. Cemeteries exist in the open parts of the town within the walls, but amply stocked burial-grounds border the town ditch, from the Báb-es-Sinjár to the tomb of Seth eastward. There are a few raised tombs on these mounds of corruption, the principal of which are named Penjeh, پنجه, and Kathyb-al-Bán, قضيب البان. Our occupation obliged us to take stations near some of the graves, and we were much disquieted in our task by the plaintive cries which recently-bereaved women were uttering over their buried relatives beneath. One young and strikingly handsome creature heeded not our presence, absorbed as she was in her grief. Her heart seemed breaking indeed, by the depth of her sobs, as she threw herself at full length on the ground and embraced the envied soil which separated her from the departed. We quitted the scene of such lamentation, glad enough to recross the Tigris, to our camp in the desolations of Nineveh; but we shall return to Mosul again, after the completion of operations to the south.

Having spent an intermediate day in laying down the preliminaries requisite for the construction of Sheet III. of the vestiges of Assyria, we struck the camp at Koijunjik, and were in full march for Nimrud, on the morning of March 23. Crossing the Khósr, now much subdued, we kept near its old bed, along the west wall of Nineveh, and then ascended the undulations beyond the ravine, to the south of it, in a direction for the village of Kará-qúsh, ("black eagle.") The road lay past the hamlets of Koják,¹ and Eytler-kói;² which latter borders on a defile and torrent coming from the plains and rising grounds to the north-east. These as well as most of the villages in the Mosul district have reservoirs for accumulating rain-water in their vicinity. Some "hubára," a species of bustard, were here and there observed on the route. They were, however, too wary for our guns, but we nevertheless enjoyed a breakfast "al fresco" on the heights, in which Soyer's patent stove was brought into action with success. We pushed on again, stopping to take angles occasionally for determining the position of the Lak-kói³ and Alíresh⁴ villages. Near the former, another ravine with a torrent is passed, over a substantial bridge built by a liberal and pious Arab, as a charitable work. An inscription records

¹ قراتوش Turkish.² قوجاق³ ايتلركوي Turkish.⁴ لك كوي Turkish.⁵ علي رش Persian?

the name and purpose of the founder, and a fine ancient "teppēh"¹ stands on the slope of the ridge, not far distant from it, in the direction of the village. The map, however, shews the situation of these as well as other places; we therefore confine ourselves to noting the beauty of the country, which in this season can scarcely be equalled. The gentle slopes of the ridges are of an emerald green, set off by herds of antelopes gamboling in the distance, and large flocks of sheep enjoying the pastures on every hand. A plentiful variety of flowers diversifies the picture; and though we were in the saddle the whole day until dark, in taking up new positions for the survey, we experienced no fatigue. As night set in we reached the camp, pitched in a clear open spot, near a reservoir at the Christian village of Karā-qúsh, which occupies the crumbled mounds of some ancient position we are still ignorant of.

We seemed objects of much curiosity to these people, and were favoured with the glances of the fresh ruddy-faced girls, that passed to and fro with their pitchers, for filling at the reservoirs. Their open smiling countenances offered a pleasing contrast to those of the shy and sallow beauties in the towns. They were evidently amused at our proceedings, and we thought were quizzing our whimsical costumes. The men stalked about, morose, yet silently inquisitive, though keeping at a respectful distance. This seemed odd, considering we were Christians like themselves, and had anticipated a far different reception, when our wanderings should throw us among those of the name. It proved otherwise however. In every Christian village we came to we found the men abrupt in character and speech. The courtesy generally experienced by the Englishman from all sects and classes of Mahomedans was absent in the Christian villagers, who strolled about with a "brusquerie" that was marked, if not openly annoying. The priests of the community kept aloof, nor did the head men, as is the custom in Mahomedan places, ask the stranger if there was anything needed to his wants. It appeared mysterious, and after witnessing similar behaviour subsequently in other places, we set the Christians down as the most thoroughly unenlightened sect in the Turkish empire. They certainly enjoy a greater freedom here than in other parts of the same territory, and rudeness may therefore be partly the result of comparative independence; but we have since thought, in connection with the accounts we have heard, that much which we witnessed was due to our persuasion as protestants alone. Led by the priesthood, and protected by the Roman-catholic powers, this may happen with the

¹ "Mound," تپه Turkish.

ignorant; nor can we well express surprise at it, when the better educated of the clergy here, to suit their own purposes of exclusiveness—as was lately the case at Diarbekir—seek to injure the protestant missionaries of America in the opinion of the Turkish authorities, by insinuations latently propagated by themselves.

March 24. The caravan was dispatched as yesterday, by the road leading direct from Kará-qúsh to Nimrúd, while we continued our survey. Before proceeding, however, we visited the outside of the Syrian catholic church dedicated to the Virgin, for the purpose of examining the Cuneiform-inscribed bricks brought from the neighbourhood of Keremlís, for the repairs of the building. These bricks looked quite fresh and new, and, according to Colonel Rawlinson, were impressed with the name and titles of Sargon. Prayers were performing in the church, in a monotonous chaunt; and booted as we were, we had no curiosity to enter. The interior of the village, and costume of the people gave, however, no favourable idea of their wealth or cleanliness, and we passed on, concerned at the prospect presented by the first Christian village we had alighted on. A wet sponge appeared to have been drawn across the brilliant clear sky of the previous evening, and exposed us to passing showers. Belláwát,¹ an artificial mount, lay on our left, where we proceeded for angles, which we got from the summit of one of the two tombs built upon it. It is sometimes named Kará-teppéh,² or “black mound;” the former name being also that of a village a little to the south-east of it. The appearance of a ditch surrounds the pile, and inclines us to regard it as an ancient keep or stronghold, for the protection of the fine valley watered by the small rivulet, which, coming from the 'Ayn-es-Safra hill, flows past Keremlís and Kará-qúsh onwards to Nimrúd, and an imperfectly defined causeway, from the mound across the ditch, in some measure confirms the idea. Rape in full blossom covered the bed of the latter, in pretty relief to the dark mound and green sward beyond. Ploughed fields and cultivation cease below this point, where the territory of the roving Arab is entered upon. The tents of a party of Dellím³ were, indeed, adjoining the mound, and we had scarcely dismounted when the chief rode up, and courteously invited us to his camp, in the following terms: “Peace be upon you! in the name of God enter our tents; they are yours; come and partake of what we can lay before you.” The words of the Mussulman robber, empty as they may have proved,

¹ بلاوات Arabic.

² قراطية Turkish.

³ These are of the same tribe as the great family of the name owning the territory on both sides of the Euphrates, between Felugia and Hít. Blood feuds have caused them to separate.

sounded grateful on our ears, and cast a deeper shade over the Christian picture we had just left; for the courteous frankness of the Arab contrasted well with the surly silence of him who has had the Samaritan for a guide.

We had breakfasted again "al fresco," and resumed our movements onwards to Khidhr-Elyás,¹ a Christian church, over a piece of country hitherto vacant in our maps. Rain fell, and we bent our steps towards the building of the above name, partly from curiosity, and partly to shelter ourselves under its roof. We could not, however, gain admittance, the low and strong door being fastened, and all our shouts proved abortive in procuring answers from within. Some of our people proposed to fire the gate, but this, of course, we would not permit, and after waiting patiently for an hour, we quitted the spot, having examined the sacristy, partly sunk under ground, in the base of an Assyrian mound near the chapel. This is a much-revered spot, where Mar Behnán, or, as it is more properly spelt, Mar Behnám,² an early Christian martyr, is said to be interred. It dates as far back as about the third century of Christ, and is, perhaps, one of the oldest sanctuaries now standing devoted to Christian observances. It boasted formerly of an excellent library, and has still, we believe, one or two pictures of holy personages, by the early masters, though they are at present torn and defaced. From without it has the appearance only of a stronghold, there being nothing in character to denote it as the abode of religion and peace. It has, indeed, on many occasions had to stand a siege, in the precarious position it holds, subject to the assaults and demands both of the Bedouins and the Turkish soldiery. We observed people moving off as we approached, and the adjoining villages were tenantless also; a sure sign of alarm, perhaps caused by our movements from hill to hill, in furtherance of our work. The sacristy is a neat circular apartment, ornamented with marble pieces, crucifixes, and inscriptions in the Estrangelo character. It is said to be connected with the chapel by a subterraneous passage, similar to that which leads from the outside to the interior of itself. This we could not hit upon, and we heard it had been blocked up when the Turkish soldiery on one occasion tore up the marble floor, in search of treasure said to be concealed there. Marble ornaments, inscriptions, and scrolls of great beauty, are reported in the fittings of the altar and chancel of the church itself; all of which bear a very early date, and are much-esteemed relics. We were, thereof, disappointed at not viewing the interior. The imams, ignorant of our intentions, acted

¹ خذر الیاس "The prophet Elias." ² به نام "good name." Persian.

wisely in maintaining a strict concealment. But they were evidently watching our proceedings, as when we got about musket-shot off they shewed themselves on the walls, and had we returned and urged an entry a second time, it would perhaps have led to an open fight. Some of our Roman-catholic servants, indeed, some days after proceeded with the intention of praying there, and had nigh been shot for their zeal, by the Friar Tuck order of monks who watch over its security. Khidhr Elyás, the name of the prophet Elias, is a mere "nom de guerre," given to the place by the Christian priesthood in troubled periods, to enlist the sympathies of the Mahomedans, who venerate all the inspired personages of Jewish history and tradition.

We now bent our steps along the valley of the Shór Derreh,¹ on the same track, indeed, which the harassed 10,000 Greeks doubtless took twenty-two centuries back, and in a short time stood on the crumbled walls around the palaces of Nimrúd. Crossing the great waste in the interior of the ancient city, a hare sprang from its seat among the mounds and afforded a burst for a few minutes; the horses were, however, too tired for a run over the ploughed lands, and puss shewed she had the advantage, by soon doubling out of sight. We gave no more than a passing glance at the excavated palaces in the platform around the great pyramid, but made direct for the tents pitched near the mud hamlet of Nimrúd, where Layard so long had a dwelling, and within their walls worked-in our triangulations of the preceding days, previous to the commencement of further operations.

March 25. The day broke with a threatening aspect, but after readjusting our instruments, the new base line was measured for the large-scale survey of Nimrúd exhibited on Sheet II. In the middle of our task the rain broke on us in a perfect storm, compelling us to return for shelter to our tents, and these afforded but a poor retreat. We were soon in the midst of a sea of water, the whole plain around being submerged by the torrents that fell. The wind, too, blew a hurricane, and at one time, notwithstanding the ropes were "backed," threatened to leave us exposed to its fury by carrying off the tents from above us; fortunately the gale took off in an hour or so, but everything was completely saturated. It required all our care, indeed, to keep the maps and instruments from being spoiled. Such a palpable darkness at midday could seldom be witnessed; earth and sky seemed blended in one general gloom, as if the anger of the gods still rested on Nimrúd; the curse of Job in its fullest extent seemed, indeed, about to be realized while the storm lasted. The wild cats

¹ شور دره Turkish for stagnant brackish water in ravines.

which infest the ruins were driven from their haunts, and coursed over the plain, through pool and mud, like "legion possessed" in search of a securer retreat in the mud hamlet adjoining. Further operations it was evident were at an end for this day, but the morrow brought with it better auspices, and the base was completed, not without risk of rheumatism to the whole party. A good round of angles was obtained from the summit of the great pyramid; these enabled us to compute its position independently of astronomical observations. These were, however, obtained also, and in a very satisfactory manner corroborated our triangulations; an agreement certainly not anticipated, considering the unfavourable weather we had encountered. From the summit of the pyramid the whole of the great plain is distinctly in view, but a few feet down the intervening land shuts out every thing beyond the distance of a mile or so. This fact alone inclines us to think it was used as a pharos for signalling the places around; the trenches through it in every direction lead to the conclusion of its being a solid structure, such as is described by Layard. The great tablet lies in fragments on its south side, and a fine view of the excavated galleries faced with sculptured slabs in the various palaces is obtained from this eminence. Mosul and the ruins of Nineveh are distinctly seen too, though at eighteen miles distance; as also the numerous Assyrian tumuli in the plains south-east of the Záb. In the afternoon the Tel Kemá¹ was examined and added to the map, with the line of water-margin where the Tigris anciently flowed along the palaces of Nimrúd to this spot. We experienced some difficulty, indeed, in extricating ourselves from the swamps occasioned by the waters of the Shór Derreh flowing into its bed. It was nightfall before we reached the tents.

The following day was fine, and the extent of the walls of Nimrúd was completed. While effecting this, some party had set fire to the bitumen springs in the bed of the Shór Derreh; the fumes and smoke tainted the whole plain around—this practice appears to be a prevalent one with the idle Arabs in the vicinity. To-day, our horses exhibited much fatigue, from the necessity of visiting every spot in order to fix the positions aright.

March 28. A leaden mantle had again been cast over the whole sky, and shortly after daybreak rain fell in torrents, precluding all works abroad; but the confinement served to bring up the map, and the indoor work of calculations, &c.

¹ تل كَمَا "Truffle mound," Arabic.

March 29. Raining still, and the effects of it beginning to tell on our wearied beasts as well as on ourselves. The best horse, indeed, appears in the last agonies, and various remedies are brought to bear on the case by our Arab friends; an old greybeard Moslem is called in to recite a particular verse from the Korán, adapted, as he says, to such accidents; but it failing, a young girl was produced as a secondary resource in such cases. Lifted by one of the bystanders, she was seven times placed astride on the prostrate animal, while the greybeard chanted anew the formula prescribed for such maladies. Still the horse remained obstinate, and would not recover, and at last a proposition was made to walk him thrice round the graveyard of the village, could he be only made to stand. By dint of blows and manual exertion, he was at last placed on his legs, and with difficulty dragged through the ceremony that was announced as a certain restorative. Alas, however, it was ineffective as the former, and elicited a laugh on the horse falling again, after the termination of the ordeal. This was conclusive of a want of faith in the infidel portion of the bystanders, and hence the failure of the remedies in the minds of our Arab friends. These facts are mentioned, only to show how simple Arab credulity is, and to what extravagant acts superstition will lead. An Arab of the Zobeyd, at no great distance, we are informed too, possesses a stone of wonderful powers in case of strangury; but the incredulity we had already displayed was sufficient reason for its being hid from us, as its properties, we were told, would certainly deteriorate, if exposed to such influences. Copious bleeding, however, brought about what the charms had failed to produce, and we were gratified in the evening, on our return from tracing the river's banks to the northward, to find the animal again on his legs, though sadly enfeebled by his late exertions. The old beds of the river with its modern course, including the great dam at Awai, were traced in this day; the French party from Khorsabad were our guests for this evening. They had arrived in the morning and occupied the day in examination of the ruined chambers and palaces in the mounds of Nimrúd. On this occasion a sheep was killed for the workmen by direction of Colonel Rawlinson, and the feast was enlivened by Arab chaunts; and dancing to the sound of the "dumbek," the "dáf,"¹ and the lyre, kept up to a late hour.

March 30. All nature is gay enough this morning under an unclouded sky, and many new and gorgeous flowers are opening under

¹ Arab names for a species of drum.

such influences, to be consigned, however, to a premature blight, as soon as their beauties attract the keen eye of our botanical companion. The earth over the ancient palaces was literally enamelled with the little delicate lily which, Colonel Rawlinson believes, gave its name to the celebrated Susa, or Shushan of scripture. The ancient beds of the Tigris to the south were traced in to-day, the principal one being that of Sirát al 'bu-debban, or "the prowler's way," which bears evidence of being occupied by the river for a very long period. It is now quite dry, and affords a species of broom used by the Arab women of the encampments around in the clay ovens hastily erected wherever these people pitch their tents. We passed many camps in our wanderings of to-day, and were welcomed at all; men came forth inviting us to dismount, while women bore on their heads well-plenished bowls of buttermilk, which we did ample justice to under the fatigue we had undergone. The principal tribes, at present pasturing on the Nimrúd plains, are the Shememteh or Shematteh, a branch of the great family Zobeyd, now occupying Babylonian 'Irak; the Jeheyah, another part of the same great tribe, both separated for a long period; the Agadát, which are members of the powerful tribes of the same name, owning the tract west of the Euphrates between Anah and Deir; the Hadidín, originally from the Syrian plains about Aleppo and Antioch; the Al'bu-Bedrán, another portion of the Zobeyd; the Al'bu-Selmán; the Jaif; and the Jebour. These are all, in fact, discontented members of larger tribes, who have sought asylums here, either from oppressions, or from having blood fends of long standing with the more powerful families they are connected with, and are so far degraded as to have lost the Bedouin character and habits, still professed by some of the families they sprung from. They are now but partially nomade, for they occupy mud villages in winter, and wander in the spring only for the benefit of pasturing their flocks on the fertile lands adjoining these fine streams. The eastern suburbs of Nimrúd and valley of the Shór Derreh were added to the map to-day.

From this time to April the 14th, the minor details around Nimrúd were filled in, and the course of the ancient canal, leading from the Záb, was traced as far as Gubbeyeh, a high mound with evident remains of building around it in the soil at the base; this is on the bank of the Záb near its junction with the Tigris—it would, doubtless, yield Assyrian relics if opened. Near this are located a party of Ma'amreh Arabs, also of the Zobeyd families: they are all Syeds or descendants of the Prophet, and, if we are to credit their own tale,

not robbers but simple "Momenín," or those who prefer peace and the study of religious doctrines to violence and a predatory life. They had the appearance, indeed, of sanctified beggars in rags, as ready to steal as to pray; they were, nevertheless, well-disposed and courteous, living here in great dread of the Shamar Bedouins located in the wilds on the other side of the Tigris, who, they inform us, frequently cross, though the river is at a great height, and carry off all before them. A few nights ago three women of their party were suddenly set upon by a band that had crossed the flood on inflated skins: they were stripped of everything, and sent back to their tents "in puris naturalibus," an outrage of only recent perpetration among true Bedouin families, who, by their rude laws, until very lately, under every provocation, spared women an indignity of this kind. Such atrocities shew how degraded the Bedouin has become, but in justice to him we must say they are committed in retaliation of injuries which the female members of his family have suffered at the hands of the Turkish soldiery when they have fallen into their power. We cannot be surprised, therefore, if the Bedouin virtues, under such examples, give way to acts that were formerly foreign to their nature.

Our further operations among the ruins of Assyria must be summed up in outline, for we are pressed with time, and indisposition will not permit of a lengthened detail. Layard has treated so fully on these subjects that we should, indeed, be engrossing public attention to little purpose, were we to dwell further on these, at present, well known localities. The contents of his second volume, now put into our hands, warn us that we should stop; it will therefore suffice to say that the ruins of the ancient Assyrian town, now occupied by Selá-míyeh, were carefully surveyed, as were the features of the country, heretofore unknown, occupying the space between the Záb and Khorsabád. The maps themselves, we trust, will be explicit enough on these points; and in concluding, we hope to add to our knowledge of these interesting regions by a more extensive examination, at a no very distant period. The hills bordering the Ghazr-su and the Záb yet require more detailed notices; and the great ruins of Shemámek and Arbíl, prolific as they are in ancient sites, should find a place in our maps, which, by-the-bye, are grievously faulty and defective as they at present stand. These we propose to amend as opportunities offer, and append to the present sheets some astronomical and geodesical data, which, in connection with the work before us, will aid in filling a material blank.

APPENDIX I.

Kernlís	كرم ليس	كرم ليس	Keramllís	Signification appropriate to Modern Vineyard of Lís, and "without honour."
Mar Behnám	مار بهنام	مار بهنام	Mar-Behnam	Saint of the Good Name. Compare Persian به نام.
Athúr	اثور	موصل نواردشير	Mosul-Núardishir	"Joining" (between Syria and Persia)—Athur—and "renovated by Ardishir."
Nínwá	نينوي	نبي يونس	Nínwa	{Nineveh, House of Nin or Ninus.
Yonan Nebiyá	يوان نبيا	جبل مقلوب	Nebbi-Yúnus	Prophet Jonah.
Tourá Dálkáf	طورا دالفاف	شېخ متي	Jebel Maklub	The Overturned or Barren.
Mar Mutti	مار متي		Sheikh Mutti	{Sheikh Matthew, or Saint Matthew.

FOR THE CONSTRUCTION OF THE GENERAL MAP OF ASSYRIA AND MESOPOTAMIA.

TABLE shewing the result of the Astronomical and Traverse Operations on the main Road between the Cities of Baghdad and Mosul.

NAMES OF PLACES NORTH OF BAGHDAD.	Positions of Observation.	Difference of Longitude from preceding place.				Actual difference of Longitude from Baghdad.	Latitudes obtained.			Position with regard to the preceding place.		Orthography of Arab names.
		Object Observed.	By Dent's Chronometer, No. 12,859.	By Dent's Chronometer, No. 12,860.	Mean of the Chronometer's		Object Observed.	By Astronomical Observation.	By Traverse Operations.	Bearing.	Distance.	
Khan Nahrawān, on the ancient Kāṭāl	Doorway	☉	6 48 E.	5 13 E.	6 0 E.	0 6 0 E.	☉	33 53 56 N.	33 53 0 N.	N. 84 E.	33 4	خان نهروان
Dellī Abbas, on the Khalīfā Canal	Bridge W. 150 yards	♀	21 25 E.	21 34 E.	21 29 E.	0 27 29 E.	*	34 4 9 N.	34 5 30 N.	N. 52 E.	20 8	دلي عباس
Karā-teppēh, Village	Mound called Nīnās-Kāṭan teppēh	☉	3 28 E.	3 40 E.	3 38 E.	0 31 7 E.	☉	34 24 43 N.	34 23 41 N.	N. 104 E.	19 9	قرآنبه
Kifri, Village	Khaṣ, roof	♀	2 27 E.	2 2 E.	2 15 E.	0 33 22 E.	*	34 41 30 N.	34 42 30 N.	N. 74 E.	17 9	کفري
Dir-Khurmatī, Village	North extreme of Village	♀	20 16 W.	20 14 W.	20 15 W.	0 13 8 E.	*	34 53 1 N.	34 51 42 N.	N. 59 W.	20 0	طوز خرماتي
Taṣnū, ancient Dakūḥ Village	Centre of the ancient Fort	♀	11 9 W.	11 19 W.	11 14 W.	0 1 54 E.	*	35 7 46 N.	35 7 14 N.	N. 344 W.	17 3	طاوق
Kerkūk, Town	21¼ West of the S. W. extreme of Citadel	♀	3 54 W.	2 56 W.	2 55 W.	0 1 1 W.	*	35 28 2 N.	35 26 45 N.	N. 111 W.	19 4	کركوك
Alitūn Kūpri, Bridge & 100 yards N. W. Khan on the lower Zab		♀	15 35 W.	15 38 W.	15 36 W.	0 16 37 W.	☉	35 45 21 N.	35 46 21 N.	N. 38 W.	23 2	التون كوبري
Arbil, Town, ancient Arbēla	N. W. extreme of Citadel Mound	♀	...	7 34 W.	...	0 34 11 W.	*	36 11 0 N.	36 10 58 N.	N. 111 W.	26 1	اربيل
Kellāk, Village & Ferry on the Upper Zab	100 yards North of the Village	♀	...	20 49 W.	...	0 45 0 W.	*	36 15 53 N.	36 16 35 N.	N. 72 W.	17 9	كلان
Mōsul, ancient Mespila	Highest and most ancient Minaret in the Town	☉	...	31 49 W.	...	1 16 52 W.	☉	36 20 16 N.	36 19 43 N.	N. 80 W.	23 7	موصل

(Approximative) Longitude of the Minaret of the Sūk-al-Ghazāl at Baghdad, 44° 25' East.

TRAVERSES made on the Journey to Mosul, for the delineation of the Road between it and Baghdad, commencing from the "Khan Nahrwan," which is in Lat. $33^{\circ} 53' N.$, and 6 miles East of the latter city.

1ST TRAVERSE.—FEB. 26TH, 1852.

KHAN NAHRWÁN to DELLÍ ABBAS.

Courses corrected for Variation throughout, which is 4° West ; average rate 3 miles per hour.

Courses.	Times.	Distances.	N.	S.	E.	W.
	m.					
N. $67^{\circ} 30'$ E.	3	15	057	....	139	....
N. 67° E.	25	1 25	488	....	1 151	....
N. 63° E.	40	2 00	908	....	1 782	....
N. 57° E.	25	1 25	681	....	1 048	....
N. 48° E.	36	1 80	1 204	....	1 338	....
N. $39^{\circ} 15'$ E.	20	1 00	774	....	633	....
N. 50° E.	29	1 25	803	....	958	....
N. 24° W.	30	1 25	1 142	....	....	508
N. 45° E.	40	2 00	1 414	....	1 414	....
N. 41° E.	60	3 00	2 264	....	1 968	....
N. 76° E.	30	1 20	290	....	1 164	....
N. 74° E.	30	1 00	276	....	961	....
S. 73° E.	15	75	....	219	717	....
S. 83° E.	5	15	....	018	149	....
N. $12^{\circ} 30'$ E.	50	2 00	1 953	....	433	....
N. 80° E.	65	2 75	478	....	2 708	....
			12 732	237	16 563	508
			237		508	
			12 495		16 055	

Diff. Lat. $12^{\circ} 30'$ N.

Diff. Long. $19^{\circ} 15'$ E.

Co. N. $51^{\circ} 57'$ E. 20 3 miles.

2ND TRAVERSE.—FEB. 27TH, 1852.

DELLÍ ABBAS to KARA TEPPEH.

Courses.	Times.	Distances.	N.	S.	E.	W.
	m.					
N. 4° E.	70	3·00	2·993	....	·209	....
N. 6° E.	78	3·88	3·859	....	·406	....
N. 59° 30' W.	13	·65	·334	....	....	·558
N. 21° E.	22	1·00	·934	....	·358	....
N. 26° E.	40	1·50	1·348	....	·658	....
N. 30° E.	25	1·00	·866	....	·500	....
N. 43° E.	35	1·70	1·243	....	1 159	....
N. 34° E.	15	·75	·622	....	·419	....
N. 28° E.	10	·50	·441	....	·235	....
N. 16° W.	25	1·25	1·202	....	....	·345
N. 18° E.	25	1·25	1·189	....	·386	....
N. 1° E.	95	4·50	4·500	....	·078	....
			19·531	....	4·408 ·903	·903
					8·505	

Diff. Lat. 19° 32' N.

Diff. Long. 4° 15' E.

Co. N. 10° 29' E. 19·9 miles.

3RD TRAVERSE —FEB. 29TH, 1852.

KARA TEPPEH to KIFRÍ.

Courses.	Times.	Distances.	N.	S.	E.	W.
	m.					
N. 17° E.	65	3 25	3·108	....	·950	....
N. 16° E.	20	1·00	·961	....	·276	....
North	23	1·15	1·150	....	....	....
N. 8° E.	25	1·25	1·238	....	·174	....
N. 16° E.	27	1·35	1·298	....	·372	....
N. 2° W.	43	2·15	2·149	....	....	·075
N. 27° W.	22	1·10	·980	....	....	·499
North	68	3·35	3·850	....	....	....
N. 6° W.	14	·70	·696	....	....	·073
N. 6° E.	20	1·00	·995	....	·105	....
N. 12° E.	38	1·90	1·858	....	·395	....
			17·783	....	2·272 ·647	·647
					1·625	

Diff. Lat. 17° 47' N.

Diff. Long. 2° 49' E.

Co. N. 7° 26' E. 17·9 miles.

4TH TRAVERSE.—MARCH 1ST, 1852.

KIFRÍ to DÚZ KHURMATÍ.

Courses.	Times.	Distances.	N.	S.	E.	W.
	m.					
N. 64° W.	70	3·50	1·534	....	....	3·145
N. 55° W.	38	1·90	1·090	....	....	1·556
N. 72° W.	27	1·35	·417	....	....	1·284
N. 72° W.	14	·70	·216	....	....	·666
N. 71° W.	26	1·30	·423	....	....	1·229
N. 69° W.	40	2·00	·717	....	....	1·867
N. 69° W.	60	3·00	1·075	....	....	2·801
N. 66° W.	15	·75	·305	....	....	·685
N. 61° W.	48	2·35	1·139	....	....	2·055
N. 48° W.	12	·60	·401	....	....	·446
N. 36° W.	15	·75	·607	....	....	·441
N. 31° W.	7	·35	·300	....	....	·180
N. 25° W.	33	1·65	1·495	....	....	·697
North	10	·50	·500	....	....	....
			10·219	....	....	17·052

Diff. Lat. 10' 12" N. Diff. Long. 20' 49" W.
Co. N. 59° 13' W. 20·0 miles.

5TH TRAVERSE.—MARCH 2ND, 1852.

DÚZ KHURMATÍ to TAOUK.

Courses.	Times.	Distances.	N.	S.	E.	W.
	m.					
N. 84° W.	90	4·50	3·731	....	....	2·517
N. 51° W.	53	2·65	1·668	....	....	2·059
N. 26° W.	14	·70	1·663	....	....	·811
N. 26° W.	13	·65				
N. 26° W.	10	·50				
N. 32° W.	15	·75	·636	....	....	·397
N. 44° W.	30	1·50	1·079	....	....	1·042
N. 30° W.	70	3·50	3·031	....	....	1·750
N. 8° W.	5	·25	·248	....	....	·035
N. 30° W.	50	2·50	2·165	....	....	1·250
			14·221	....	....	9·861

Diff. Lat. 14' 13" N. Diff. Long. 12' 00" W.
Co. N. 34° 36' W. 17·3 miles.

6TH TRAVERSE.—MARCH 3RD, 1852.

TAOUK to KERKUK.

Courses.	Times.	Distances.	N.	S.	E.	W.
N. 16° W.	25m.	1·05	1·009	....	....	·289
N. 53° W.	50	2·50	1·505	....	....	1·997
N. 32° W.	40	2·00	1·696	....	....	1·060
N. 27° W.	20	1·00	891	....	....	·454
N. 25° W.	10	·50	·453	....	....	·211
N. 33° W.	30	1·50	1·258	....	....	·817
N. 33° W.	55	2·75	2·306	....	....	1·498
N. 7° E.	80	4·00	3·970	....	·488	....
N. 7° E.	35	1·75	1·737	....	·213	....
N. 14° E.	10	·50	·485	....	·121	....
N. 27° E.	10	·50	·446	....	·227	....
N. 29° E.	30	1·50	1·312	....	·727	....
N. 17° E.	40	2·00	1·913	....	·585	....
			18·981	....	2·354	6·326
						2·354
						3·972

Diff. Lat. 18° 59' N.

Diff. Long. 4' 45" W.

Co. N. 11° 31' W. 19·4 miles.

7TH TRAVERSE.—MARCH 4TH, 1852.

KERKUK to ALTUN KIUPRI.

Courses.	Times.	Distances.	N.	S.	E.	W.
N. 57° W.	50m.	2·50	1·362	....	....	2·097
N. 34° W.	37	1·85	1·534	....	....	1·035
N. 57° W.	28	1·50	·817	....	....	1·258
N. 63° W.	17	·85	·386	....	....	·757
N. 28° W.	10	·50	·441	....	....	·235
N. 37° W.	23	1·15	·918	....	....	·692
N. 23° W.	25	1·25	1·151	....	....	·488
N. 3° W.	10	·50	·499	....	....	·026
N. 60° W.	33	1·65	·825	....	....	1·429
N. 63° W.	22	1·10	·499	....	....	·980
N. 17° W.	10	·50	·478	....	....	·146
N. 33° W.	10	·50	·419	....	....	·272
N. 37° W.	7	·36	·288	....	....	·217
N. 3° W.	13	·65	·649	....	....	·034
N. 15° W.	15	·75	·724	....	....	·194
North	35	1·75	1·750	....	....	....
N. 10° W.	22	1·10	1·083	....	....	·191
N. 78° W.	3	·15	·031	....	....	·147
N. 65° W.	23	1·15	·486	....	....	1·042
N. 40° W.	67	3·50	2·681	....	....	2·250
N. 31° W.	30	1·50	1·266	....	....	·773
			18·307	....	....	14·263

Diff. Lat. 18° 19' N.

Diff. Long. 17° 30' W.

Co. N. 37° 53' N. 23·2 miles.

8TH TRAVERSE.—MARCH 6TH, 1852.

From ALTUN KIUPRÍ, on the Lesser Záb, the Záb-el-Asfal of Abul Feda, to ARBIL, of Alexander's Campaign.

Courses.	Times.	Distances.	N.	S.	E.	W.
	m.					
N. 16° W.	47	2·35	2·259	....	....	·648
N. 25° W.	30	1·50	1·359	....	....	·634
N. 3° E.	39	1·95	1·947	....	·102	....
N. 5° W.	29	1·45	1·444	....	....	·126
N. 25° W.	50	2·50	2·266	....	....	1·057
N. 17° W.	48	2·40	2·295	....	....	·702
N. 8° W.	10	·50	·495	....	....	·070
N. 15° W.	45	2·25	2·173	....	....	·582
N. 11° W.	85	4·25	4·172	....	....	·811
N. 6° W.	125	7·25	7·211	....	....	·759
			25·621	....	·102	5·389
						·102
						5·287

Diff. Lat. 25° 37' N.

Diff. Long. 6° 25' W.

Co. N. 11° 27' W. 26·1 miles.

9TH TRAVERSE.—MARCH 7TH, 1852.

From ARBIL to KELLÁK, on the Upper Záb, the Záb-el-Ála of Abul Feda.

Courses.	Times.	Distances.	N.	S.	E.	W.
	m.					
N. 63° W.	44	2·20	·999	....	....	1·960
N. 43° W.	20	1·00	·731	....	....	·682
N. 35° W.	37	1·85	1·515	....	....	1·061
N. 68° W.	26	1·30	·487	....	....	1·205
N. 77° W.	19	·95	·214	....	....	·926
N. 48° W.	25	1·25	·886	....	....	·929
N. 59° W.	29	1·45	·747	....	....	1·243
N. 53° W.	12	·60	·361	....	....	·479
N. 53° W.	4	·20	·120	....	....	·160
N. 70° W.	61	3·05	1·043	....	....	2·866
S. 75° W.	7	·35	....	·091	....	·338
S. 77° W.	39	1·95	....	·439	....	1·900
N. 89° W.	31	1·55	·027	....	....	1·550
S. 61° W.	40	2·00	....	....	....	1·749
			7·080	1·500		17·048
			1·500			
			5·580			

Diff. Lat. 5° 35' N.

Diff. Long. 21' W.

Co. N. 71° 49' W. 17·9 miles.

10TH TRAVERSE.—MARCH 8TH, 1852.

KELLÁK, on the Upper Záb, to MOSUL and NINEVEH.

Courses.	Times.	Distances.	N.	S.	E.	W.
N. 83° W.	38m.	1·90	·232	....	....	1·886
N. 80° W.	59	2·95	·512	....	....	2·905
N. 68° W.	71	3·55	1·330	....	....	3·292
N. 42° W.	24	1·24	·921	....	....	·830
N. 57° W.	38	1·90	1·035	....	....	1·593
N. 61° W.	48	2·40	1·164	....	....	2·099
N. 80° W.	24	1·20	·208	....	....	1·182
S. 72° W.	33	1·65	....	·510	....	1·569
S. 85° W.	85	4·25	....	·370	....	4·234
S. 77° W.	60	3·00	....	·675	....	2·923
			5·402	1·555	....	22·518
			1·555			
			3·847			

Diff. Lat. 3' 50" N.

Diff. Long. 27' 50" W.

Co. N. 80° 13' W. 22·5 miles.

Aggregate of Daily Results.

	N.	S.		E.	W.
Feb. 26, 1852. Diff. Lat.	12' 30"	....	Diff. Long.	19' 15"	....
Feb. 27, " "	19' 32"	....	"	4' 15"	....
Feb. 29, " "	17' 47"	....	"	2' 49"	....
Mar. 1, " "	10' 12"	....	"	....	20' 49"
Mar. 2, " "	14' 13"	....	"	....	12' 00"
Mar. 3, " "	18' 59"	....	"	....	4' 45"
Mar. 4, " "	18' 19"	....	"	....	17' 30"
Mar. 6, " "	25' 37"	....	"	....	6' 25"
Mar. 7, " "	5' 35"	....	"	....	21' 00"
Mar. 8, " "	3' 50"	....	"	....	27' 50"
Diff. Lat. from Khan Nahrwán	2° 26' 34" N.			26' 19"	110' 19" W.
Lat. of Khan Nahrwán	33° 53' 00" N.				26' 19" E.
Lat. of Mosúl	36° 19' 34" N.		Diff. Long., Mosúl, West of Khan Nahrwán		84' 00" W.
			Khan Nahrwán, East of Baghdád		6' 00" E.
			Diff. Long., Mosúl, West of Baghdád		1° 18' 00" W.
Lat. of Mosúl by daily Results	36° 19' 34" N.				
Lat. of Mosúl by Synoptical Table	36° 19' 56" N.				
Mean Lat. of Mosúl	36° 19' 45" N.				
Diff. Long. Mosúl, W. Baghdád, by daily Results,					1° 18' 30" W.
+ 30' to Minaret					
Do. do. by Synoptical Table					1° 17' 02" W.
Means. Mosúl Minaret West Baghdád					1° 17' 46" W.

A Synoptical Table of Courses and Distances made daily between Baghdád and Mosúl.

Names of Places.	Courses.	Distances.	N.	S.	E.	W.
Baghdád to the Khan Nahrwán	N. 8° 32' E.	34·0	33·62	...	5·04	...
Khan Nahrwán to Delli Abbas	N. 51° 57' E.	20·3	12·51	...	15·99	...
Delli Abbas to Kara Teppoh	N. 10° 29' E.	19·9	19·56	...	3·63	...
Kara Teppoh to Kifri	N. 7° 26' E.	17·9	17·75	...	2·31	...
Kifri to Dáz Khurnatí	N. 59° 13' W.	20·0	10·24	...	...	17·19
Dáz Khurnatí to Tsouk	N. 34° 36' W.	17·3	14·24	...	...	9·77
Tsouk to Kerkúk	N. 11° 31' W.	19·4	19·01	...	...	3·88
Kerkúk to Altún Kiuprí	N. 37° 53' W.	23·2	18·31	...	...	14·27
Altún Kiuprí to Arbíl	N. 11° 27' W.	26·1	25·58	...	...	5·19
Arbíl to Kellák	N. 71° 49' W.	17·9	5·59	...	...	17·00
Kellák to Mosúl	N. 80° 13' W.	22·7	3·86	...	...	22·38
			180·27	...	26·97	89·68
						26·97
						62·71

Mosúl, North Baghdád 3° 00' 16" Diff. Long. Mosúl, West Baghdád 1° 16' 32" (Place of Obsⁿ.)
 Lat. of Baghdád 33° 19' 40" Minaret of the Town, West of Place of Obsⁿ. + 30"

Lat. of Mosúl 36° 19' 56" Minaret of the Town, West Baghdád 1° 17' 02"

Course N. 19° 17' W. Distance 190·7 miles.

STATION 4TH (3RD TRAVERSE.)—FEBRUARY 29TH, 1852.

KIFRI.

*Mer. Alt. * Rigel for Latitude.*

	93° 59' 40"
Index Error	30
	93 59' 10
	46 56 35
Ref. and Par.	— 54
	46 56 41
	90
	43 4 19 N.
Decl.	8 22 49 S.
Lat. of Kifri	54 41 30 N.

Altitudes of Venus.

	Alt.	Alt.	Alt.	Alt.	Alt.
Time by D. 12859	64 24 30	64 11 30	63 58 30	63 46 00	63 33 45
h. m. s.	+ 30	+ 30	+ 30	+ 30	+ 30
5 56 35.5	64 24 50	64 11 50	63 59 00	63 46 30	63 34 15
5 57 8.3	32 18 25	32 5 55	31 59 30	31 53 15	31 47 7
5 57 40	— 1 32	— 1 33	— 1 33	— 1 33	— 1 34
5 58 11	32 10 53	32 4 23	31 57 57	31 51 43	31 45 33
5 58 44	83 56 08	83 56 08	83 56 08	83 56 08	83 56 08
288 18.8	34 41 30	34 41 30	34 41 30	34 41 30	34 41 30
Chron. S.	6 04 26	150 49 31	150 35 85	150 29 20	150 23 11
+ 6 47	9 59 48	75 24 15	75 17 47	75 14 40	75 11 35
Long T.	3 04 38	43 13 23	43 19 50	43 23 58	43 28 02

H. Diff. 77° 1

	0.00244	0.00244	0.00244	0.00244	0.00244
4 | $\sqrt{\frac{1}{12}}$	0.08501	0.08501	0.08501	0.08501	0.08501
1 | $\sqrt{\frac{1}{12}}$	9.40140	9.40397	9.40453	9.40608	9.40750
	9.83559	9.83603	9.83646	9.83687	9.83728
	9.32444	9.32645	9.32843	9.33034	9.33233

Decl. Q 6 3.52 N.

P. D. 83 56.08

H. Diff. 10° 96

	5 50 38.75	5 51 11.75	5 51 44.35	5 52 15.75	5 52 47.15
4 | $\sqrt{\frac{1}{12}}$	+ 12 41.63	+12 41.63	+12 41.63	+12 41.63	+12 41.63
1 | $\sqrt{\frac{1}{12}}$	6 3 20 38	6 3 53.38	6 4 26.98	6 4 57.38	6 5 28.78
	5 56 35.5	5 57 8.3	5 57 40	5 58 11	5 58 44
	6 44.88	6 45.08	6 45.98	6 46.38	6 46.78

Rt. asc. Q 0 58 53.79

H. Diff. 9.357

	27 10	D. 12859. S. M. T. Khán Nahrwán, Feb. 25th	m. s.
4 | $\sqrt{\frac{1}{12}}$	28 071	Gain in 99 hrs. at 11 s. daily.....	5 41.48
1 | $\sqrt{\frac{1}{12}}$	624	D. 12859. S. M. T. Khán Nahrwán, Feb. 29th	45.37
	78	D. 12859. S. M. T. Kifri, Feb. 29th	4 56.11
	+ 28.773		
	22 46 34.28	Diff. Long. in Time	1 49.31

© R. As. 23 47 03.15

1 12 56.85 Compt. © Centre.

H. Diff. .498

	1.494	D. 12860. S. M. T. Khán Nahrwán, Feb. 29th	m. s.
4 | $\sqrt{\frac{1}{12}}$	38	D. 12860. S. M. T. Kifri, Feb. 29th	8 43.43
1 | $\sqrt{\frac{1}{12}}$	4	Diff. Long. in Time	1 49.69
	— 1.531		
	13 43.16		
Equa.	12 41.63		

m. s.			
D. 12859 = 1 49.31 = Diff. Long.....	0	27	20 E.
D. 12860 = 1 49.69 = Diff. Long.....	0	27	25 E.
Means give Kifri E. Khán Nahrwán.....	0	27	23 E.
Khán Nahrwán E. Baghdad.....	6		E.
Kifri E. Baghdad.....	0	33	23 E.

STATION 5 (4TH TRAVERSE)—MARCH 1ST.

DÚZ KHURMATÍ.

*Mer. Alt. * Rigel for Latitude.*

	93° 39' 40"
Index Error	+ 30
	93 30 10
	46 46 5
Ref. Par.	— 55
	46 44 10
	90
	43 15 50 N.
Decl.	8 23 49 S.
Lat. of Dúz Khurmatí	34 53 01 N.

Altitudes of Venus.

Time by D. 12859	Alt.	Alt.	Alt.	Alt.	Alt.
h. m. s.	63 36 00	63 30 60	63 10 40	62 2 50	61 54 00
6 4 28.3	+ 30	+ 30	+ 30	+ 30	+ 30
6 5 5	63 36 30	63 21 30	63 11 10	62 3 00	61 54 30
6 5 31	31 18 15	31 10 40	31 5 35	31 1 30	30 57 15
6 6 53	— 1 35	— 1 36	— 1 36	— 1 37	— 1 37
6 6 12.5	31 16 40	31 9 4	31 3 59	30 59 53	30 55 33
27 08.8	80 25 13	83 25 13	83 25 13	83 25 13	83 25 13
6 5 26	34 53 1	34 53 1	34 53 1	34 53 1	34 53 1
Chron. S. + 5 18	149 34 54	149 27 18	149 32 13	149 18 07	149 13 52
6 10 43	74 47 27	74 43 39	74 41 6	74 39 13	74 36 56
Long. Time 2 58 24	43 30 47	43 34 35	43 37 7	43 39 10	43 41 18
T. from Noon 3 12 18					

H. Diff. 76° 7

3

12 | 230.1

15.3

245.4

+ 4 05.4

6 30 41.2

Q Decl. 6 34 46.6

H. Diff. 10° 97

3

12 | 32.91

2.19

+ 35 10

1 2 43.21

Q Rt. Asc. 1 3 18.31

H. Diff. 9.335

3

12 | 28.006

1.867

+ 29.873

22 50 18.96

C Rt. Asc. 23 50 48.83

24

1 9 11.17

H. Diff. .519

3

12 | 1.557

104

— 1.661

12 31.21

Equa. 12 29 55

0.00287

0.00602

9.41887

9.83792

9.34568

0.00387

0.00602

9.42063

9.83842

9.34794

0.00287

0.00602

9.42181

9.83876

9.34946

0.00387

0.00602

9.42276

9.83903

9.35068

0.00287

0.00602

9.42373

9.83931

9.35193

h. m. s.

3 44 41.5

1 3 18.31

1 9 11.17

5 57 10.98

+12 29.55

6 9 40.53

6 4 28.3

5 12 23

5 13.93

5 13.53

5 13.33

5 14.23

67.25

h. m. s.

3 45 19.9

1 3 18.31

1 9 11.17

5 57 49.38

+12 29.55

6 10 18.93

6 5 5.

5 13.93

5 13.53

5 13.33

5 14.23

h. m. s.

3 45 45.5

1 3 18.31

1 9 11.17

5 58 14.98

+12 29.55

6 10 44.53

6 5 31.

5 13.53

5 13.33

5 14.23

h. m. s.

3 46 6.3

1 3 18.31

1 9 11.17

5 58 35.78

+12 29.55

6 11 5.33

6 5 52.

5 13.33

5 13.33

5 14.23

h. m. s.

3 46 37.7

1 3 18.31

1 9 11.17

5 58 57.18

+12 29.55

6 11 26.73

6 6 12.5

5 14.23

5 14.23

D. 12859. S. M. T. Khán Nahrwán, Feb. 26th 5 41.46

Gain in 123 hrs. at 11 s. daily -56.37

D. 12859. S. M. T. Khán Nahrwán, Mar. 1st 4 45.11

D. 12859. S. M. T. Dúz Khurmatí, Mar. 1st 5 13.45

Diff. Long. in Time -28.34

D. 12860. S. M. T. Khán Nahrwán, Mar. 1st 6 53.73

D. 12860. S. M. T. Dúz Khurmatí, Mar. 1st 7 23.45

Diff. Long. in Time -28.73

D. 12859 = 28.34 = Diff. Long. 0 7 6 E.

D. 12860 = 28.73 = Diff. Long. 0 7 11 E.

Means give Dúz Khurmatí E. Khán Nahrwán ... 7 8 E.

Khán Nahrwán E. Baghdad 6 E.

Dúz Khurmatí E. Baghdad 13 8 E.

STATION 7 (6TH TRAVERSE).—MARCH 3RD, 1852.

KERKUK.

*Mer. Alt. * Rigel for Latitude.*

	92° 19' 40"
Index Error	+ 30
	<u>92 20 10</u>
	46 10 5
Par. Ref.	- 56
	<u>46 9 9</u>
	90
	<u>43 50 61 N.</u>
Decl.	8 22 49 S.
Lat. of Kerkuk	<u>35 28 03 N.</u>

Altitudes of Venus.

Time by D. 12859

h.	m.	s.
5	58	31
5	58	46
5	59	14.5
6	0	3
6	0	27.5
<u>29</u>	<u>58</u>	<u>53.0</u>
5	59	23
+	3	50
<u>6</u>	<u>03</u>	<u>12</u>
2	57	40
<u>3</u>	<u>5</u>	<u>32</u>

Alt.	Alt.	Alt.	Alt.	Alt.
66 47 50	66 57 60	66 26 16	66 8 60	66 67 50
+ 30	+ 30	+ 30	+ 30	+ 30
<u>66 47 50</u>	<u>66 38 30</u>	<u>66 26 46</u>	<u>66 8 30</u>	<u>66 58 00</u>
33 23 55	33 19 10	33 13 23	33 4 15	33 59 00
- 1 28	- 1 28	- 1 28	- 1 29	- 1 29
<u>33 23 27</u>	<u>33 17 43</u>	<u>33 11 54</u>	<u>33 2 46</u>	<u>33 57 31</u>
82 24 17	82 24 17	82 24 17	82 24 17	82 24 17
35 28 03	35 28 03	35 28 03	35 28 03	35 28 03
<u>161 14 46</u>	<u>161 10 01</u>	<u>161 04 13</u>	<u>160 55 5</u>	<u>160 49 50</u>
75 37 23	75 35 00	75 23 6	75 27 23	75 24 55
<u>42 14 56</u>	<u>42 17 18</u>	<u>42 20 12</u>	<u>42 24 46</u>	<u>42 27 24</u>

H. Diff. 76.0

3	0.00883
6	0.08914
7	0.39498
6	0.82760
235.6	0.31555
+	3 55.6
7	31 47

0.00883	0.00883	0.00883	0.00883	0.00883
0.08914	0.08914	0.08914	0.08914	0.08914
0.39498	0.39498	0.39498	0.39498	0.39498
0.82760	0.82760	0.82760	0.82760	0.82760
0.31555	0.31555	0.31555	0.31555	0.31555
3 55.6	3 55.6	3 55.6	3 55.6	3 55.6
7 31 47	7 31 47	7 31 47	7 31 47	7 31 47

Q Decl. 7 35 42.6 N.

90	7 35 42.6 N.
P. D.	82 24 17.4

h. m. s.	h. m. s.	h. m. s.	h. m. s.	h. m. s.
3 36 23.5	3 36 47.9	3 37 17.3	3 38 3.9	3 38 30.7
1 12 04.04	1 12 04.04	1 12 04.04	1 12 04.04	1 12 04.04
1 1 44.61	1 1 44.61	1 1 44.61	1 1 44.61	1 1 44.61
5 50 12.15	5 50 36.55	5 51 06.95	5 51 52.55	5 52 19.25
+ 12 4.05	+ 12 4.05	+ 12 4.05	+ 12 4.05	+ 12 4.05
<u>6 2 16.20</u>	<u>6 2 40.60</u>	<u>6 3 10.00</u>	<u>6 3 56.60</u>	<u>6 4 23.30</u>
5 58 21	5 58 45	5 59 14.5	6 0 3	6 0 27.50
<u>3 55.20</u>	<u>3 54.60</u>	<u>3 55.5</u>	<u>3 53.60</u>	<u>3 55.90</u>
8 54.60	8 54.60	8 54.60	8 54.60	8 54.60
8 55.5	8 55.5	8 55.5	8 55.5	8 55.5
8 55.90	8 55.90	8 55.90	8 55.90	8 55.90
2 21.2	2 21.2	2 21.2	2 21.2	2 21.2

H. Diff. 9.295

3	9.295
6	27.885
930	28.815
+	28.815
22	57 46.57

D. 59. S. 3 55.8
D. 60. S. 59 2 30.1
D. 60. S. 6 25.4

D. 12859. S. M. T. Khán Nahrwán, Feb. 25th	5 41.48
Gain in 171 hrs. at 11 s. daily	1 18.34
D. 12859. S. M. T. Khán Nahrwán, Mar. 3rd	4 53.14
D. 12859. S. M. T. Kerkuk, Mar. 3rd	3 55.3
Diff. Long. in Time	0 27.84

© Rt. Asc. 22 58 15.39

Compt. Centre 1 01 44.61

H. Diff. 560

3	560
6	1 690
56	1 736
12	5.79
<u>12</u>	<u>4.06</u>

D. 12860. S. M. T. Khán Nahrwán, Mar. 3rd	6 53.73
D. 12860. S. M. T. Kerkuk, Mar. 3rd	6 26.4
Diff. Long. in Time	28.33

D. 12859 = 37.84 = Diff. Long.	0 6 68 W.
D. 12860 = 38.33 = Diff. Long.	0 7 4 W.
Means give Kerkuk W. Khán Nahrwán	7 01 W.
Khán Nahrwán E. Baghdad	6 00 E.
Kerkuk W. Baghdad	1 01 W.

1ST STATION.—KHÁN NAHRWÁN.—FEBRUARY 25TH, 1852.

Bearing W.S.W. 300 yards.

Lat. Khán Nahrwán.....	33	53	00 N.
Place of Observation E.N.E. 800 yds. = Diff. lat. 115 yds. or			8 N.
Lat. of Place of Observation	33	53	08 N.

	No.		m.	s.	
Chronometer.	Dent. 12859.	S. M. T. Baghdád, February 23rd	5	39.05.	Gaining Daily 11.
Chronometer.	Dent. 12860.	S. M. T. Baghdád, February 23rd	6	32.09.	Going Mean Time.

Sun's Lower Limb P.M.

Times by a Watch.	Alt.	Alt.	Alt.	Alt.	Alt.
h. m. s.	54 5 30	53 63 50	53 59 40	53 58 10	53 56 40
3 18 30	+ 30	+ 30	+ 30	+ 30	+ 30
3 19 5-5					Index Error.
3 19 46	54 5 50	53 53 50	53 40 10	53 38 40	53 36 10
3 20 4-5	97 9 55	96 56 55	96 50 5	96 46 50	96 43 5
3 20 26-5	+ 14 24	+ 14 24	+ 14 23	+ 14 23	+ 14 23
97 52-5	97 17 19	97 11 19	97 4 28	97 1 13	96 57 27
3 19 34	99 16 39	99 16 39	99 16 39	99 16 39	99 16 39 P. D.
W. S. M. T. + 6 50	33 53 3	33 53 3	33 53 3	33 53 3	33 53 3 Lat.
3 26 24	160 37 1	160 21 1	160 14 10	160 10 55	160 7 9 Sum.
Long T. 3 27 40	80 13 30	80 10 30	80 7 5	80 5 27	80 3 34 ½ Sum.
38 44	52 56 11	52 59 11	53 2 37	53 4 14	53 6 7 Diff.
Equat. - 13 24					
T. from Noon 15 20					
	0-00573	0-00573	0-00573	0-00573	0-00573 Coscc. P. D.
H. D. 0-08084	0-08084	0-08084	0-08084	0-08084	0-08084 Sec. Lat.
15½ 55-75	9-33969	9-33308	9-33467	9-23575	9-23711 Cosin. & Sum.
13-95	9-90199	9-90237	9-90260	9-90275	9-90293 Sin. Diff.
Decl. 9 16 52-8 s.	9-21644	9-23091	9-23373	9-22506	9-22660
9 16 38-9 s.					
P. D. 99 16 38-9					
	h. m. s.	h. m. s.	h. m. s.	h. m. s.	h. m. s.
3 11 57-4	3 12 32-3	3 13 12-1	3 13 31-1	3 13 63	3 13 63
+ 13 25-3	+ 13 25-3	+ 13 25-8	+ 13 25-8	+ 13 25-8	+ 13 25-8 Equatn.
H. D. 3 25 29-7	3 25 57-6	3 26 37-4	3 26 56-4	3 27 18-3	3 27 18-3
15½ 404	3 18 30	3 19 5-5	3 19 46	3 20 4-5	3 20 26-5
- 101	6 52-7	6 52-1	6 51-4	6 51-9	6 51-8
13 25-41	6 53-1				
Equa. 13 25-31	6 51-4				
	6 51-9				
	6 51-8				
	5 1259-9				
W. S. M. T. 25th 6 51-58					
D. 12859. F. Watch 1 10-5					
D. 12859. S. M. T. 5 41-48					
D. 12860. S. 12859 1 12-25					
D. 12860. S. M. T. 6 53-73					
	m. s.				
D. 12859. S. M. T. Baghdad February, 33rd.....	5 39-06				
Gain in 54 hrs at 11 s. daily.....	- 24-75				
D. 12859. S. M. T. Baghdad, February 35th.....	5 14-30				
D. 12859. S. M. T. Khan Nahrwan, February 35th 5 41-48					
Diff. of Long. in Time	27-18				
	m. s.				
D. 12860. S. M. T. Baghdad, February 35th.....	6 32-9				
D. 12860. S. M. T. Khan Nahrwan, February 35th 6 53-73					
Diff. of Long. in Time	20-83				
	s.				
D. 12859 = 27-18 = Diff. Long.	6 48 E.				
D. 12860 = 20-83 Diff. Long.	5 12 E.				
Means give Khan Nahrwan, E. Baghdad	6 00 E.				

2ND STATION (1ST TRAVERSE)—FEBRUARY 26TH, 1852.

DELLÍ ABBAS.

Place of Observation 150 yards E. of the Bridge over the Khális.

*Mer. Alt. * Rigel for Lat.*

Index Error	95° 7' 20"
	+ 30
	95 7 50
	47 33 55
Corr.	- 55
	47 33 02
	90
	43 24 58 N.
Decl.	8 32 40 S.
Lat. of Dellí Abbas	34 4 9 N.

Altitudes of Venus.

Time by D. 12859	Alt.	Alt.	Alt.	Alt.	Alt.
h. m. s.	63 4 00	63 46 50	63 31 50	63 17 40	61 44 00
5 54 38.5	+ 30	+ 30	+ 30	+ 30	+ 30
5 55 22.5	63 4 30	63 46 50	63 32 20	63 18 10	61 44 30
5 55 58.5	31 32 15	31 23 35	31 16 10	31 9 5	30 52 15
5 56 35	- 1 34	- 1 35	- 1 35	- 1 36	- 1 37
5 58 0.5	31 30 41	31 21 00	31 14 35	31 7 39	30 50 34
2m 35.0	85 29 09	85 29 9	85 29 9	85 29 9	85 29 9
5 56 8	34 04 9	34 4 9	34 4 9	34 4 9	34 4 9
Chron. S. + 6 50	151 3 59	150 55 8	150 47 53	150 40 47	150 23 56
6 02 58	75 31 59	75 27 34	75 23 56	75 20 25	75 11 58
Long. Time 2 59 20	44 01 18	44 5 44	44 9 21	44 13 54	44 21 20
T. from Noon 3 03 38					

H. D. 77° 9

3

233 7

3 9

6

238 2

+ 3 58 2

4 26 53

Q Decl. 4 30 51 N.

90

P. D. 85 29 09

3

10° 96

3

32 85

54

9

+ 38 48

45 11 36

Q Rt. Asc. 45 44 84

6 53 56

6 54 06

6 55 06

6 55 06

276 40

3

28 581

© Rt. Asc. 22 35 17 37

23 35 46 20

24

Comp Cent. 1 24 13 60

H. D. 439

3

1 287

21

3

- 1 301

13 15 73

Equa. 13 14 42

0.00135	0.00135	0.00135	0.00135	0.00135
0.08178	0.08178	0.08178	0.08178	0.08178
9.39761	9.39977	9.40157	9.40397	9.40732
9.84194	9.84252	9.84399	9.84546	9.84655
9.32268	9.32543	9.32769	9.32965	9.33500

h. m. s.	h. m. s.	h. m. s.	h. m. s.	h. m. s.
3 38 19.3	3 39 4.1	3 39 41.5	3 40 17.5	3 41 42.5
45 44.84	45 44.84	45 44.84	45 44.84	45 44.84
1 24 13.8	1 24 13.8	1 24 13.8	1 24 13.8	1 24 13.8
5 48 17.94	5 49 2.74	5 49 40.14	5 50 16.14	5 51 41.14
+13 14 42	+13 14 42	+13 14 42	+13 14 42	+13 14 42
6 01 32.56	6 2 17.16	6 2 54.56	6 3 30.56	6 4 55.56
5 54 38.5	5 55 23.5	5 55 58.5	5 56 35	5 58 0.5
6 53 56	6 54 06	6 55 06	6 55 56	6 55 06

D. 12859. S. M. T. Khán Nahrwán, Feb. 25th 5 41 48

Gain in 24 hrs. at 11 a. daily - 12 16

D. 12859. S. M. T. Khán Nahrwán, Feb. 26th 5 29 33

D. 12859. S. M. T. Dellí Abbas, Feb. 26th ... 6 55 28

Diff. of Long. in Time 1 25 55

D. 12860. S. M. T. Khán Nahrwán, Feb. 26th 6 53 73

D. 12860. S. M. T. Dellí Abbas, Feb. 26th ... 8 20 28

Diff. Long. in Time 1 26 55

D. 12859 = 1 25 95 = Diff. Long.	0 21 29 E.
D. 12860 = 1 26 55 = Diff. Long.	0 21 37 E.
Means give Dellí Abbas E. Khán Nahrwán	0 21 33 E.
Khán Nahrwán E. Baghdád	0 6 00 E.
Dellí Abbas E. Baghdád	0 27 33

3RD STATION (2ND TRAVERSE)—FEB. 28TH 1852.

KARA TEPPEH.

Place of Observation—

Mer. Alt. Sun's Lower Limb for Lat.

H. D.	56° 39'
	3
6,0	116 9 17
	+ 2 49·2
Decl	8 9 35·5 S.
Corr. Decl.	8 12 24·7 S.

Index Error	94° 14' 30"
	+ 30
	94 15 00
	47 7 30
Corr. Semdr.	+ 15 22
	47 22 52
	90

Decl.	42 37 8 N.
	8 12 25 S.

Lat. of Kara Teppah	34 24 43 N.
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Altitudes of Sun's Lower Limb.

Time by D. 12869	h. m. s.	Alt.	Alt.	Alt.	Alt.	Alt.
	8 54 13·5	55 00 00	55 9 00	55 16 15	55 26 35	55 35 40
	8 54 40·3	+ 30	+ 30	+ 30	+ 30	+ 30
	8 55 1·5	55 00 30	55 9 30	55 16 45	55 27 5	55 36 10
	8 55 32	57 30 15	57 34 45	57 38 22	57 43 32	57 48 5
	8 55 58·5	+ 14 26	+ 14 26	+ 14 27	+ 14 27	+ 14 28
	9 25 25·8	57 44 41	57 49 11	57 52 49	57 57 59	58 2 33
Chron. S.	8 55 05	98 15 24	98 15 24	98 15 24	98 15 24	98 15 24
	+ 6 50	34 24 43	34 24 43	34 24 43	34 24 43	34 24 43
	9 1 55	160 24 48	160 29 18	160 32 55	160 38 06	160 42 40
Equa.	— 12 57	80 13 24	80 14 39	80 16 28	80 19 03	80 21 20
	8 48 58	52 27 43	52 25 28	52 23 39	52 21 04	52 18 47
Long. Time	2 59 40					
	5 49 18					
	12					
T. from Noon	6 10 42	0·00453	0·00453	0·00453	0·00453	0·00453
		0·08355	0·08355	0·08355	0·08355	0·08355
		9·23069	9·23904	9·22770	9·22580	9·22410
		9·89925	9·89903	9·89885	9·89860	9·89838
		9·21802	9·21615	9·21463	9·21248	9·21056

H. Diff.	56° 39'
	6
	88.834
10	939
1	94
6,0	34·867
	+ 5 48·67
	8 9 35·5
Decl.	8 15 24·57 S.
	90
P.D.	98 15 24

H. D.	453
	6
	2·718
10	57
1	7
	+ 2 800
	12 54·57
Equa.	12 57·37

D. 12859	m. s.
D. 12860	— 1 40·78 = Diff. Long.....
	0 25 13 E.
	0 25 49 E.
Means give Kara Teppah E. Khán Nahrwán	25 30 E.

D. 12859.	S. M. T. Khán Nahrwán, Feb. 25th	m. s.
	Gain in 66 hrs. at 11 s. daily	— 30·25
D. 12859.	S. M. T. Khán Nahrwán, Feb. 28th	5 11·23
D. 12859.	S. M. T. Kara Teppah, Feb. 28th...	6 52·01
	Diff. Long. in Time	1 40·78

D. 12860.	S. M. T. Khán Nahrwán, Feb. 28th	m. s.
D. 12860.	S. M. T. Kara Teppah, Feb. 28th...	6 53·73
	Diff. Long. in Time	1 43·28

AT THE SAME STATION AS YESTERDAY.—FEB. 29TH, 1852.

KARA TEPPEH.

Altitudes of the Sun's Lower Limb.

Time by D. 12859		Alt.		Alt.		Alt.		Alt.
h. m. s.								
8 27 49		46 11 50		46 23 50		46 34 50		46 46 50
8 28 20		+ 30		+ 30		+ 30		+ 30
8 28 52		46 12 20		46 24 20		46 35 00		46 47 15
8 29 14		23 6 10		23 11 40		23 17 30		23 23 37
8 29 37.5		+ 14 2		+ 14 2		+ 14 3		+ 14 3
143 59.5		23 20 12		23 25 43		23 31 33		23 37 04
Chron. S.		8 28 46		97 53 10		97 53 10		97 53 10
		+ 6 40		34 24 43		34 24 43		34 24 43
Equa.		8 26 26		155 38 5		155 49 26		155 57 33
		- 19 46		77 49 2		77 54 43		77 59 46
		8 23 40		54 28 50		54 23 10		54 19 6
Long. Time		2 59 40						
		5 33 00						
		12						
T. from Noon		6 37 00						
H. Diff.	56 68	0° 00' 41.3	0° 00' 41.3	0° 00' 41.3	0° 00' 41.3	0° 00' 41.3	0° 00' 41.3	0° 00' 41.3
	6	0° 08' 35.5	0° 08' 35.5	0° 08' 35.5	0° 08' 35.5	0° 08' 35.5	0° 08' 35.5	0° 08' 35.5
		9° 32' 45.8	9° 32' 45.8	9° 32' 45.8	9° 32' 45.8	9° 32' 45.8	9° 32' 45.8	9° 32' 45.8
		9° 31' 06.8	9° 31' 06.8	9° 31' 06.8	9° 31' 06.8	9° 31' 06.8	9° 31' 06.8	9° 31' 06.8
		9° 32' 26.1	9° 32' 26.1	9° 32' 26.1	9° 32' 26.1	9° 32' 26.1	9° 32' 26.1	9° 32' 26.1
		3 38 18.1	3 37 47.7	3 37 15.5	3 36 53.9	3 36 30.7	3 36 07.5	3 35 44.3
		8 21 41.9	8 22 12.3	8 22 44.5	8 23 06.1	8 23 29.3	8 23 52.5	8 24 15.7
		+ 12 46.3	+ 12 46.3	+ 12 46.3	+ 12 46.3	+ 12 46.3	+ 12 46.3	+ 12 46.3
		8 34 28.2	8 34 58.6	8 35 30.8	8 35 52.4	8 36 15.6	8 36 38.8	8 37 02.0
		8 27 49	8 28 20	8 28 53	8 29 14	8 29 37.5	8 29 60.7	8 30 03.9
		6 39.2	6 38.6	6 38.0	6 37.4	6 36.8	6 36.2	6 35.6
		6 38.6	6 38.0	6 37.4	6 36.8	6 36.2	6 35.6	6 35.0
		6 38.0	6 37.4	6 36.8	6 36.2	6 35.6	6 35.0	6 34.4
		6 38.4	6 37.8	6 37.2	6 36.6	6 36.0	6 35.4	6 34.8
		6 38.8	6 38.2	6 37.6	6 37.0	6 36.4	6 35.8	6 35.2
		6 39.2	6 38.6	6 38.0	6 37.4	6 36.8	6 36.2	6 35.6
		6 39.6	6 39.0	6 38.4	6 37.8	6 37.2	6 36.6	6 36.0
		6 40.0	6 39.4	6 38.8	6 38.2	6 37.6	6 37.0	6 36.4
		6 40.4	6 39.8	6 39.2	6 38.6	6 38.0	6 37.4	6 36.8
		6 40.8	6 40.2	6 39.6	6 39.0	6 38.4	6 37.8	6 37.2
		6 41.2	6 40.6	6 40.0	6 39.4	6 38.8	6 38.2	6 37.6
		6 41.6	6 41.0	6 40.4	6 39.8	6 39.2	6 38.6	6 38.0
		6 42.0	6 41.4	6 40.8	6 40.2	6 39.6	6 39.0	6 38.4
		6 42.4	6 41.8	6 41.2	6 40.6	6 40.0	6 39.4	6 38.8
		6 42.8	6 42.2	6 41.6	6 41.0	6 40.4	6 39.8	6 39.2
		6 43.2	6 42.6	6 42.0	6 41.4	6 40.8	6 40.2	6 39.6
		6 43.6	6 43.0	6 42.4	6 41.8	6 41.2	6 40.6	6 40.0
		6 44.0	6 43.4	6 42.8	6 42.2	6 41.6	6 41.0	6 40.4
		6 44.4	6 43.8	6 43.2	6 42.6	6 42.0	6 41.4	6 40.8
		6 44.8	6 44.2	6 43.6	6 43.0	6 42.4	6 41.8	6 41.2
		6 45.2	6 44.6	6 44.0	6 43.4	6 42.8	6 42.2	6 41.6
		6 45.6	6 45.0	6 44.4	6 43.8	6 43.2	6 42.6	6 42.0
		6 46.0	6 45.4	6 44.8	6 44.2	6 43.6	6 43.0	6 42.4
		6 46.4	6 45.8	6 45.2	6 44.6	6 44.0	6 43.4	6 42.8
		6 46.8	6 46.2	6 45.6	6 45.0	6 44.4	6 43.8	6 43.2
		6 47.2	6 46.6	6 46.0	6 45.4	6 44.8	6 44.2	6 43.6
		6 47.6	6 47.0	6 46.4	6 45.8	6 45.2	6 44.6	6 44.0
		6 48.0	6 47.4	6 46.8	6 46.2	6 45.6	6 45.0	6 44.4
		6 48.4	6 47.8	6 47.2	6 46.6	6 46.0	6 45.4	6 44.8
		6 48.8	6 48.2	6 47.6	6 47.0	6 46.4	6 45.8	6 45.2
		6 49.2	6 48.6	6 48.0	6 47.4	6 46.8	6 46.2	6 45.6
		6 49.6	6 49.0	6 48.4	6 47.8	6 47.2	6 46.6	6 46.0
		6 50.0	6 49.4	6 48.8	6 48.2	6 47.6	6 47.0	6 46.4
		6 50.4	6 49.8	6 49.2	6 48.6	6 48.0	6 47.4	6 46.8
		6 50.8	6 50.2	6 49.6	6 49.0	6 48.4	6 47.8	6 47.2
		6 51.2	6 50.6	6 50.0	6 49.4	6 48.8	6 48.2	6 47.6
		6 51.6	6 51.0	6 50.4	6 49.8	6 49.2	6 48.6	6 48.0
		6 52.0	6 51.4	6 50.8	6 50.2	6 49.6	6 49.0	6 48.4
		6 52.4	6 51.8	6 51.2	6 50.6	6 50.0	6 49.4	6 48.8
		6 52.8	6 52.2	6 51.6	6 51.0	6 50.4	6 49.8	6 49.2
		6 53.2	6 52.6	6 52.0	6 51.4	6 50.8	6 50.2	6 49.6
		6 53.6	6 53.0	6 52.4	6 51.8	6 51.2	6 50.6	6 50.0
		6 54.0	6 53.4	6 52.8	6 52.2	6 51.6	6 51.0	6 50.4
		6 54.4	6 53.8	6 53.2	6 52.6	6 52.0	6 51.4	6 50.8
		6 54.8	6 54.2	6 53.6	6 53.0	6 52.4	6 51.8	6 51.2
		6 55.2	6 54.6	6 54.0	6 53.4	6 52.8	6 52.2	6 51.6
		6 55.6	6 55.0	6 54.4	6 53.8	6 53.2	6 52.6	6 52.0
		6 56.0	6 55.4	6 54.8	6 54.2	6 53.6	6 53.0	6 52.4
		6 56.4	6 55.8	6 55.2	6 54.6	6 54.0	6 53.4	6 52.8
		6 56.8	6 56.2	6 55.6	6 55.0	6 54.4	6 53.8	6 53.2
		6 57.2	6 56.6	6 56.0	6 55.4	6 54.8	6 54.2	6 53.6
		6 57.6	6 57.0	6 56.4	6 55.8	6 55.2	6 54.6	6 54.0
		6 58.0	6 57.4	6 56.8	6 56.2	6 55.6	6 55.0	6 54.4
		6 58.4	6 57.8	6 57.2	6 56.6	6 56.0	6 55.4	6 54.8
		6 58.8	6 58.2	6 57.6	6 57.0	6 56.4	6 55.8	6 55.2
		6 59.2	6 58.6	6 58.0	6 57.4	6 56.8	6 56.2	6 55.6
		6 59.6	6 59.0	6 58.4	6 57.8	6 57.2	6 56.6	6 56.0
		6 60.0	6 59.4	6 58.8	6 58.2	6 57.6	6 57.0	6 56.4
		6 60.4	6 59.8	6 59.2	6 58.6	6 58.0	6 57.4	6 56.8
		6 60.8	6 60.2	6 59.6	6 59.0	6 58.4	6 57.8	6 57.2
		6 61.2	6 60.6	6 60.0	6 59.4	6 58.8	6 58.2	6 57.6
		6 61.6	6 61.0	6 60.4	6 59.8	6 59.2	6 58.6	6 58.0
		6 62.0	6 61.4	6 60.8	6 60.2	6 59.6	6 59.0	6 58.4
		6 62.4	6 61.8	6 61.2	6 60.6	6 60.0	6 59.4	6 58.8
		6 62.8	6 62.2	6 61.6	6 61.0	6 60.4	6 59.8	6 59.2
		6 63.2	6 62.6	6 62.0	6 61.4	6 60.8	6 60.2	6 59.6
		6 63.6	6 63.0	6 62.4	6 61.8	6 61.2	6 60.6	6 60.0
		6 64.0	6 63.4	6 62.8	6 62.2	6 61.6	6 61.0	6 60.4
		6 64.4	6 63.8	6 63.2	6 62.6	6 62.0	6 61.4	6 60.8
		6 64.8	6 64.2	6 63.6	6 63.0	6 62.4	6 61.8	6 61.2
		6 65.2	6 64.6	6 64.0	6 63.4	6 62.8	6 62.2	6 61.6
		6 65.6	6 65.0	6 64.4	6 63.8	6 63.2	6 62.6	6 62.0
		6 66.0	6 65.4	6 64.8	6 64.2	6 63.6	6 63.0	6 62.4
		6 66.4	6 65.8	6 65.2	6 64.6	6 64.0	6 63.4	6 62.8
		6 66.8	6 66.2	6 65.6	6 65.0	6 64.4	6 63.8	6 63.2
		6 67.2	6 66.6	6 66.0	6 65.4	6 64.8	6 64.2	6 63.6
		6 67.6	6 67.0	6 66.4	6 65.8	6 65.2	6 64.6	6 64.0
		6 68.0	6 67.4	6 66.8	6 66.2	6 65.6	6 65.0	6 64.4
		6 68.4	6 67.8	6 67.2	6 66.6	6 66.0	6 65.4	6 64.8
		6 68.8	6 68.2	6 67.6	6 67.0	6 66.4	6 65.8	6 65.2
		6 69.2	6 68.6	6 68.0	6 67.4	6 66.8	6 66.2	6 65.6
		6 69.6	6 69.0	6 68.4	6 67.8	6 67.2	6 66.6	6 66.0
		6 70.0	6 69.4	6 68.8	6 68.2	6 67.6	6 67.0	6 66.4
		6 70.4	6 69.8	6 69.2	6 68.6	6 68.0	6 67.4	6 66.8
		6 70.8	6 70.2	6 69.6	6 69.0	6 68.4	6 67.8	6 67.2
		6 71.2	6 70.6	6 70.0	6 69.4	6 68.8	6 68.2	6 67.6
		6 71.6	6 71.0	6 70.4	6 69.8	6 69.2	6 68.6	6 68.0
		6 72.0	6 71.4	6 70.8	6 70.2	6 69.6	6 69.0	6 68.4
		6 72.4	6 71.8	6 71.2	6 70.6	6 70.0	6 69.4	6 68.8
		6 72.8	6 72.2	6 71.6	6 71.0	6 70.4	6 69.8	6 69.2
		6 73.2	6 72.6	6 72.0	6 71.4	6 70.8	6 70.2	6 69.6
		6 73.6	6 73.0	6 72.4	6 71.8	6 71.2	6 70.6	6 70.0
		6 74.0	6 73.4	6 72.8	6 72.2	6 71.6	6 71.0	6 70.4
		6 74.4	6 73.8	6 73.2	6 72.6	6 72.0	6 71.4	6 70.8
		6 74.8	6 74.2	6 73.6	6 73.0	6 72.4	6 71.8	6 71.2
		6 75.2	6 74.6	6 74.0	6 73.4	6 72.8	6 72.2	6 71.6
		6 75.6	6 75.0	6 74.4	6 73.8	6 73.2	6 72.6	6 72.0
		6 76.0	6 75.4	6 74.8	6 74.2	6 73.6	6 73.0	6 72.4
		6 76.4	6 75.8	6 75.2	6 74.6	6 74.0	6 73.4	6 72.8
		6 76.8	6 76.2	6 75.6	6 75.0	6 74.4	6 73.8	6 73.2
		6 77.2	6 76.6	6 76.0	6 75.4	6 74.8	6 74.2	6 73.6
		6 77.6	6 77.0	6 76.4	6 75.8	6 75.2	6 74.6	6 74.0
		6 78.0	6 77.4	6 76.8	6 76.2	6 75.6	6 75.0	6 74.4
		6 78.4	6 77.8	6 77.2	6 76.6	6 76.0	6 75.4	6 74.8
		6 78.8	6 78.2	6 77.6	6 77.0	6 76.4	6 75.8	6 75.2
		6 79.2	6 78.6	6 78.0	6 77.4	6 76.8	6 76.2	6 75.6
		6 79.6	6 79.0	6 78.4	6 77.8	6 77.2	6 76.6	6 76.0
		6 80.0	6 79.4	6 78.8	6 78.2	6 77.6	6 77.0	6 76.4
		6 80.4	6 79.8	6 79.2	6 78.6	6 78.0	6 77.4	6 76.8
		6 80.8	6 80.2	6 79.6	6 79.0	6 78.4</		

STATION 8TH (7TH TRAVERSE)—MARCH 5TH.
ALTÚN KIUPRÍ.

100 yards N.W. of the Khán. On a Mound.

Mer. Alt. Sun's Lower Limb for Latitude.

2 h. 56 m. Long. Time.

H. D. 57° 30'

30	115° 30'
20	28° 30'
6	19° 30'
	5° 79'
	169° 34'
	+ 2 49° 8'
	5 59 9° 9'
Decl.	5 54 52° 0' S.

Index Error	96 8 50
	+ 30
	96 8 50
Corr. Semdr.	48 4 25
	+ 15 22
	48 19 47
	90
Decl.	41 40 13 N.
	5 54 52 S.
Lat of Altún Kiuprí	35 45 21 N.

Altitudes of Venus.—March 4th, 1852.

Time by D. 12859	Alt.	Alt.	Alt.	Alt.	Alt.
H. D. 5 53 30	68 56 45	68 45 10	68 6 50	67 13 20	66 51 50
5 56 9	+ 30	+ 30	+ 30	+ 30	+ 30
5 57 48	68 57 15	68 45 40	68 12 20	67 43 50	66 52 20
5 58 49.5	34 28 37	34 22 50	34 3 40	33 51 53	33 26 10
6 1 1	- 1 25	- 1 25	- 1 26	- 1 26	- 1 28
29 49 26	34 27 13	34 21 25	34 2 14	33 50 29	33 24 43
5 57 53	81 54 3	81 54 3	81 54 3	81 54 3	81 54 3
Chron. S. 2 40	33 45 21	33 45 21	33 45 21	33 45 21	33 45 21
Long Time 6 00 33	152 6 36	152 00 49	151 41 39	151 29 53	151 4 6
Long Time 2 56 20	76 3 18	76 00 24	75 50 49	75 44 56	75 32 3
T. from Noon 3 04 13	41 36 6	41 38 59	41 48 35	41 54 27	42 7 21

H. Diff. 75° 6'	0° 00' 435	0° 00' 435	0° 00' 435	0° 00' 435	0° 00' 435
3	0° 00' 070	0° 00' 070	0° 00' 070	0° 00' 070	0° 00' 070
226 8	9° 38' 300	9° 38' 346	9° 38' 300	9° 38' 346	9° 38' 300
4 | 50	9° 38' 213	9° 38' 254	9° 38' 254	9° 38' 254	9° 38' 254
231 8	9° 29' 018	9° 30' 105	9° 30' 125	9° 31' 102	9° 31' 119
+ 3 51° 8'					
8 2 5° 3' N.					

Q Decl. 8 5 57'	h. m. s.	h. m. s.	h. m. s.	h. m. s.	h. m. s.
90	3 32 9	3 32 31.5	3 34 10 1	3 35 10.5	3 37 22.5
P. D. 81 54 03	1 16 27.41	1 16 27.41	1 16 27.41	1 16 27.41	1 16 27.41
	58 1° 50	58 1° 50	58 1° 50	58 1° 50	58 1° 50
H. D. 11° 00	5 46 31.30	5 47 00.50	5 48 39.40	5 49 39.80	5 51 51.80
3	+ 11 50 59	+ 11 50 59	+ 11 50 59	+ 11 50 59	+ 11 50 59
33° 00	5 58 21.89	5 58 51.89	5 60 29.99	5 61 30.39	5 63 43.39
4 | 73	5 55 39	5 56 9	5 57 48	5 58 49.5	5 61 1
+ 33° 73	2 42° 39	2 42° 39	2 41° 00	2 40° 39	2 41° 39
1 15 53° 68	2 42° 39	2 42° 39	2 41° 00	2 40° 39	2 41° 39
Q Rt. Asc. 1 16 27 41	2 40° 59	2 40° 59	2 41° 00	2 40° 39	2 41° 39

H. D. 9° 27' 8	D. 59. S. M. T. 2 41° 01	D. 12859. S. M. T. Khán Nahrwán, Feb. 25th 5 41° 48	m. s.
3	D. 60. S. 59 2 41	Gain in 195 hrs. at 11 s. daily	1 29° 37
27° 828	D. 60. S. M. T. 5 22° 01	D. 12859. S. M. T. Khán Nahrwán, Mar. 4th 4 12° 11	2 41° 01
4 | 618		D. 12859. S. M. T. Altún Kiuprí, Mar. 4th ...	2 41° 01
+ 28° 446		Diff. Long. in Time	1 30° 32
23 1 29° 66			

© Rt. Asc. 23 1 58° 11	D. 12860. S. M. T. Khán Nahrwán, Mar. 4th 6 53° 73	m. s.
24	D. 12860. S. N. T. Altún Kiuprí, Mar. 4th ...	5 23° 91
58 01° 89	Diff. Long. in Time	1 30° 32

H. D. 578	D. 12859 = 1 30° 32 = Diff. Long.	0 23 53 W.
3	D. 12860 = 1 30° 32 = Diff. Long.	0 23 42 W.
4 | 1 734	Means give Altún Kiuprí, W. Khán Nahrwán	23 37 W.
38	Khán Nahrwán E. Baghdád	6 00 E.
- 1° 773	Altún Kiuprí W. Baghdád	16 37
11 52° 36		
Equa. 11 50° 59		

STATION 9TH (8TH TRAVERSE)—MARCH 6TH.

ARBIL.

The place of Observation immediately at the N.W. edge of the base of the Mound forming the Citadel.

*Mer. Alt. * Sirius for Lat.*

	74° 37' 30"
Index Error	+ 30
	74 38 00
	37 19 00
Ref. Par.	- 1 16
	37 17 44
	90
	53 43 16 N.
Decl.	16 30 76 S.
Lat. of Arbil	36 11 00 N.

Altitudes of Venus.

Time by D. 12859		Alt.	Alt.	Alt.	Alt.
h. m. s.					
5 58 2.5		68 40 50	68 19 50	68 5 00	67 51 50
5 58 58.5		+ 30	+ 30	+ 30	+ 30
5 59 33		68 41 00	68 19 50	68 5 30	67 51 50
0 0 9		34 30 30	34 9 55	34 9 45	33 55 55
23 56 43		- 1 25	- 1 26	- 1 26	- 1 26
5 59 11		34 19 05	34 8 29	34 1 19	33 54 29
Chron. S. M. T. + 4 10		80 53 58	80 53 58	80 53 58	80 53 58
0 3 21		36 11 00	36 11 00	36 11 00	36 11 00
Long. Time 2 56 10		151 24 03	151 13 27	151 6 17	150 59 27
T. from Noon 3 7 11		75 42 1	75 36 43	75 33 8	75 29 43
		41 22 56	41 28 14	41 31 49	41 35 14
H. D. 74° 6 3					
6 | $\frac{1}{2}$ 23.8		0.00550	0.00550	0.00550	0.00550
1 | $\frac{1}{2}$ 7.5		0.09306	0.09306	0.09306	0.09306
23.25		9.39269	9.39707	9.39707	9.39674
+ 3 52.5		9.82025	9.82101	9.82152	9.82201
9 2 9.2		9.31150	9.31488	9.31715	9.31931
Q Decl. 9 6 01.7 N.					
90					
P. D. 80 53 58.3					
H. D. 11° 02 3		h. m. s.	h. m. s.	h. m. s.	h. m. s.
		3 35 18.3	3 36 12.8	3 36 49.5	3 37 24.3
		1 25 16.24	1 25 16.24	1 25 16.24	1 25 16.24
		50 36.70	50 36.70	50 36.70	50 36.20
6 | $\frac{1}{2}$ 33.06		5 51 11.24	5 53 5.74	5 53 43.44	5 53 17.24
1 | $\frac{1}{2}$ 11.0		+11 22.26	+11 22.26	+11 22.26	+11 22.26
+ 34.64		6 02 33.50	6 03 28.70	6 04 04.70	6 4 39.20
1 24 41.90		5 58 3 5	5 58 58.5	5 59 33	6 0 9
Q Rt. Asc. 1 25 16.24		4 31.00	4 29 50	4 31.70	4 30.50
		4 29.50			
H. D. 9° 34.3		4 31.70			
3		4 30.50			
6 | $\frac{1}{2}$ 37.736		122.70			
1 | $\frac{1}{2}$ 934		D. 59. S. M. T. 4 30.675	D. 12859. Ran down yesterday.		
154		D. 60. S. 59 23.5			
23 8 54.60		D. 60. S. M. T. 4 53.175			
23 9 23.30					
24					
Comp. Cent. 0 50 36.70					
H. D. 613					
3					
6 | $\frac{1}{2}$ 1839					
1 | $\frac{1}{2}$ 61					
- 1.910					
11 24.17					
Equa. 11 23.26					

D. 12860. S. M. T. Khán Nahrwán, Mar. 6th 6 53.73
 D. 12860. S. M. T. Arbíl, Mar. 6th 4 53.175
 Diff. Long. in Time..... 2 00.555

Arbíl W. Khán Nahrwán, 3 00.555 = 30 11 W.
 Khán Nahrwán E. Baghdád 6 00 E.
 Arbíl W. Baghdád 24 11 W.

STATION 10TH (9TH TRAVERSE)—MARCH 7TH.

KELLÁK.

On the Upper Záb, at the North end of the Village.

*Mer. Alt. * Strius for Latitude.*

	74° 37' 45"
Index Error	+ 30
	74 28 15
	57 14 7
Ref. Par.	- 1 16
	57 13 51
	90
	53 47 09 N.
Decl.	16 31 16 S.
Lat. of Kellák	36 15 53 N.

Altitudes of Venus.

Time by D. 12859	Alt.	Alt.	Alt.	Alt.	Alt.
h. m. s.	70 55 30	70 56 55	70 56 50	70 18 00	70 5 30
5 55 46.5	+ 30	+ 30	+ 30	+ 30	+ 30
5 56 30					
5 57 1.5	70 56 00	70 56 55	70 57 00	70 18 30	70 9 00
5 57 33.5	35 28 00	35 18 27	35 13 30	35 9 16	35 4 30
5 57 49	- 1 23	- 1 23	- 1 23	- 1 23	- 1 23
5 57 49	35 26 38	35 17 08	35 12 08	35 7 53	35 3 07
284 36.5	80 24 17	80 24 17	80 24 17	80 24 17	80 24 17
5 59 55	36 15 53	36 16 53	36 15 53	36 15 53	36 15 53
Chron. S. + 3	153 6 48	151 57 15	151 52 18	151 48 08	151 43 17
5 59 55	76 5 24	75 58 57	75 56 09	75 54 01	75 51 38
Long. Time 2 54 30	40 26 46	40 41 33	40 44 01	40 46 09	40 48 31
T. from Noon 3 05 35					

H. Diff. 74° 1

3

6 | 75 | 223.3

7.4

229.7

+ 3 49.7

9 31 53.5 N.

Q Decl. 9 35 43.2

90

P. D. 80 24 17

H. Diff. 11° 04

3

6 | 75 | 33.12

1.10

+ 3 44.23

1 29 6.49

Q Rt. Asc. 1 29 40.71

H. Diff. 9° 226

3

6 | 75 | 27.078

923

28.001

23 13 26.30

53 18 04.90

© Rt. Asc. 24

Comp. Cent. 0 46 55.1

H. Diff. 639

3

6 | 75 | 1.887

63

1.960

11 9.46

Equa. 11 7.51

0.00613 0.00613 0.00613 0.00613 0.00613

0.09351 0.09351 0.09351 0.09351 0.09351

9.38196 9.38439 9.38663 9.38670 9.38789

9.81354 9.81435 9.81461 9.81493 9.81527

9.29513 9.29826 9.29936 9.30135 9.30279

h. m. s. h. m. s. h. m. s. h. m. s. h. m. s.

3 30 58.1 3 31 47.5 3 32 12.7 3 32 34.7 3 32 59.1

1 29 40.71 1 29 40.71 1 29 40.71 1 29 40.71 1 29 40.71

46 55.1 46 55.1 46 55.1 46 55.1 46 55.1

5 47 33.91 5 48 33.31 5 48 48.51 5 49 10.51 5 49 34.91

+11 7.51 +11 7.51 +11 7.51 +11 7.51 +11 7.51

5 58 41.48 5 59 30.83 5 59 56.03 6 00 18.03 6 0 42.43

5 55 46.5 5 56 36 5 57 1.5 5 57 33.5 5 57 49

2 54 92 2 54 83 2 54 62 2 54 53 2 53 43

2 54 82 2 54 53 2 54 52 2 53 42

2 54 52 2 53 42

272.20

D. 59. S. M. T. 2 54 44

D. 60. S. M. T. 29.6

D. 60. S. M. T. 3 24.01

D. 12860. S. M. T. Khán Nahrwán, Mar. 7th 6 53.73

D. 12860. S. M. T. Kellák, Mar. 7th 3 24.04

Diff. Long. in Time 3 29.69

Kellák, W. Khán Nahrwán m. s. 3 29.69 - 3 53 25 W.
 Khán Nahrwán E. Baghdád 6 00 E.
 Kellák, W. Baghdád 0 46 23 W.

Sights at Mr. Rassam's House (British Consul).

MOSUL.

To find the Lat. and Long. of the Minaret of Mosul, bearing 299' 300 yds.

MARCH 11TH, 1852.

Mer. Alt. Sun's Lower Limb for Latitude.

[illegible]

Altitudes of the Sun's Lower Limb.—March 10th.

Time by D. 12859		Alt.		Alt.		Alt.		Alt.		Alt.	
h. m. s.		50 44 30		50 52 20		50 59 40		51 8 50		51 18 00	
8 34 33.5		+ 30		+ 30		+ 30		+ 30		+ 30	
8 34 55.5		50 45 00		50 52 50		51 00 10		51 9 20		51 18 30	
8 35 15.5		25 23 50		25 20 35		25 30 5		25 34 40		25 39 15	
8 35 41		+ 14 13		+ 14 13		+ 14 13		+ 14 13		+ 14 13	
8 36 6.5		25 36 43		25 40 38		25 44 18		25 48 53		25 53 28	
8 170 32		94 1 51		94 1 31		94 1 31		94 1 31		94 1 31	
Chrou. S.	+ 25	36 20 13		36 20 12		36 20 13		36 20 13		36 20 13	
8 35 43		155 58 26		156 02 21		156 06 01		156 10 36		156 15 11	
10 27		77 59 13		78 1 10		78 3 00		78 5 18		78 7 35	
8 25 16		53 22 30		53 20 53		53 18 43		52 16 25		52 14 07	
Long. Time	9 53										
5 32 16											
12											
T. from Noon 6 27 44		0 00107		0 00107		0 00107		0 00107		0 00107	
		0 09391		0 09391		0 09391		0 09391		0 09391	
		9 31834		9 31719		9 31609		9 31473		9 31335	
II. Diff. 56° 73'		9 89874		9 89855		9 89837		9 89815		9 89793	
6		9 31226		9 31072		9 30944		9 30795		9 30625	
352.38											
20	10 57	h. m. s.		h. m. s.		h. m. s.		h. m. s.		h. m. s.	
4	8 01	3 35 27.1		3 35 5.7		3 34 45.1		3 34 19.7		3 33 54.1	
4	8 01	8 24 32.9		8 24 54.3		8 25 14.9		8 25 40.3		8 26 5.9	
379.77		+ 10 27.4		+ 10 27.4		+ 10 27.4		+ 10 27.4		+ 10 27.4	
+ 6 19.77		8 35 00.3		8 35 21.7		8 35 42.3		8 36 7.7		8 36 33.3	
3 55 11		8 34 33.5		8 34 55.5		8 35 15.5		8 35 41		8 36 6.5	
Decl.	4 01 30.77 S.	26.8		26.2		26.8		26.7		26.8	
90		26.2									
P. D.	94 01 31	26.8									
II. Diff. 657		26.8									
6		20.7									
8 94.2		26.8									
20	219	- 33									
4	44	D. 59. S. M. T. 26.66									
4	44	D. 60. S. M. T. 57									
+ 4 249		D. 60. S. M. T. 1 23.66									
10 23.15											
Equa.	10 27.309										

	ni. s.	
Mosul (House), W. Khán Nahrwán 5 30 '07 =	1 22 51 W.	
Minaret, N. 61° W. 300 yds. = Diff. Long	9 W.	
Mosul Minaret, W. Khán Nahrwán	1 22 40 W.	
Khán Nahrwán E. Baghdád	6 00 E.	
Mosul Minaret W. Baghdád	1 16 40 W.	

Sights at the Camp of Koijunjik Village or Aramushiyeh.

RUINS OF NINEVEH.

Mer. Alt. Sun's Lower Limb for Latitude.

MARCH 14TH, 1852.

MARCH 15TH, 1852.

		h. m. s.				h. m. s.	
Long. in Time.....		2 53 30					
H. Dif.	59-13	101 59 50	103 47 10	H. Dif.	59-19		
	2	50 59 55	51 23 35		2		
		Par. Ref. 42	- 41				
	30	50 59 13	51 22 54		30	118 38	
	20	+ 16 6	+ 16 6		20	29 59	
	2	51 15 19	51 39 00		2	19-73	
		90	90		2	1-97	
						169 67	
						2 49 7	
Decl.	2 20 47-4 S.	38 44 41 N.	38 21 00 N.	Decl.	1 67 7-0 S.		
Corr. Decl.	2 28 36-9 S.	2 23 37 S.	1 59 57 S.	Corr. Decl.	1 59 56-7 S.		
		Lat. of Koijunjik	36 21 04 N.				

Altitudes of the Sun's Lower Limb.

MARCH 13TH, 1852.

Time by D. 12859		Alt.	Alt.	Alt.	Alt.	Alt.
h. m. s.						
8 39 40		54 21 00	54 29 50	54 36 50	54 45 10	54 54 00
8 40 3-5		+ 30	+ 30	+ 30	+ 30	+ 30
8 40 24-5		54 21 30	54 29 50	54 37 20	54 45 40	54 54 30
8 40 45		27 10 45	27 14 55	27 18 40	27 22 50	27 27 15
8 41 12		+ 14 21	+ 14 21	+ 14 22	+ 14 22	+ 14 22
202 8		27 25 06	27 29 16	27 33 02	27 37 12	27 41 37
8 40 25-8		92 50 42	92 50 42	92 50 42	92 50 42	92 50 42
Equa. 9 38-4		56 21 4	56 21 4	56 21 4	56 21 4	56 21 4
8 30 47		156 36 52	156 41 2	156 44 48	156 48 58	156 53 23
Long T. 2 52 30		78 18 26	78 20 31	78 22 24	78 24 29	78 26 41
6 38 17		50 53 20	50 51 15	50 49 22	50 47 17	50 45 04
12						
T. from Noon 6 21 43						

	0-00054	0-00054	0-00054	0-00054	0-00054
	0-09399	0-09399	0-09399	0-09399	0-09399
	9-30678	9-30550	9-30435	9-30307	9-30171
	9-88982	9-88961	9-88941	9-88920	9-88897
	9-29113	9-28964	9-28829	9-28680	9-28521
H. D.	59-08				
	6				
	854-30				
20	19-68				
2	1-97				
	37 5-95				
	+ 6 15-9				
	2 41 26-5				
Decl.	2 50 42	h. m. s.	h. m. s.	h. m. s.	h. m. s.
90		3 29 55-6	3 29 32-3	3 29 11-3	3 28 48-2
P. D.	0-50 42	8 30 04-4	8 30 27-7	8 30 48-7	8 31 11-8
		+ 9 38-5	+ 9 38-5	+ 9 38-5	+ 9 38-5
		8 39 42-9	8 40 06-2	8 40 27-2	8 40 48-3
		8 39 40	8 40 3-5	8 40 24-5	8 40 48
		2-9	2-7	2-7	2-3
		2-7			
		2-7			
		2-3			
		2-9			
		35			
H. Dif.	603	D. 59. S. M. T.	2-7	D. 12860. S. M. T. Khán Nahrwán, Mar. 13th	m. s.
	6	D. 60. S. 59	1 30	D. 12860. S. M. T. Koijunjik Mar. 13th	6 53-73
		D. 60. S. M. T.	1 32-7		1 32-7
				Dif. Long. in Time.....	5 21-05
Equa.	9 38-48				

D. 12860 = Koijunjik, W. Khán Nahrwán 1 20 15 W.
 Khán Nahrwán E. Baghdad 6 00 E.
 Koijunjik, W. Baghdad 1 14 15 W.

Sights for Rates, at the same spot.

KOIYUNJIK.

APRIL 18TH, 1852.

Altitudes of the Sun's Lower Limb.

Time by D. 1852	Alt.	Alt.	Alt.	Alt.	Alt.
h. m. s.	76 46 50	76 46 40	77 4 50	77 12 50	77 21 50
0 51 52	+ 30	+ 30	+ 30	+ 30	+ 30
0 52 16.8	76 46 50	76 46 10	77 5 00	77 13 00	77 22 20
0 53 2	38 23 25	38 23 6	38 32 30	38 36 30	38 41 10
0 53 40.8	+ 14 51	+ 14 51	+ 14 53	+ 14 53	+ 14 53
0 53 28	38 38 16	38 43 58	38 47 23	38 51 23	38 56 02
1 13 16	80 53 6	80 53 6	80 53 6	80 53 6	80 53 6
Chron. F. - 4	38 21 4	38 21 4	38 21 4	38 21 4	38 21 4
0 48 59	155 52 56	155 57 06	156 1 33	156 5 33	156 10 13
Equ. - 30	77 56 13	77 56 33	78 00 46	78 9 46	78 9 6
0 49 30	39 17 57	39 18 37	39 13 34	39 11 34	39 9 4
Long. T. 2 52 30					
0 54 19					
12					
T. from Noon 6 13 00					

0-08552	0-08552	0-08553	0-08553	0-08552
0-08559	0-08559	0-08560	0-08560	0-08560
9-32012	9-31874	9-31742	9-31625	9-31486
9-30166	9-30136	9-30086	9-30034	9-29980
9-22129	9-21955	9-21788	9-21620	9-21453

H. Ref. 54.32

3 1 2

Perf.

P. D.

H. Ref.

S. M. T.

Equ.

h. m. s.	h. m. s.	h. m. s.	h. m. s.	h. m. s.
3 12 37.4	3 12 13	3 11 49.4	3 11 29.4	3 11 9.9
+ 30	+ 30	+ 30	+ 30	+ 30
3 12 4.4	3 12 13	3 11 49.4	3 11 29.4	3 11 9.9
3 12 4.4	3 12 13	3 11 49.4	3 11 29.4	3 11 9.9
3 12 4.4	3 12 13	3 11 49.4	3 11 29.4	3 11 9.9
3 12 4.4	3 12 13	3 11 49.4	3 11 29.4	3 11 9.9

12 17 52 S. M. T. Koyunjik, March 12th

12 17 52 S. M. T. Koyunjik, April 12th

Calc. in 12 days

Red. Obs.

12 17 52	S. M. T. Koyunjik, March 12th	12 17 52
12 17 52	S. M. T. Koyunjik, April 12th	12 17 52
Calc. in 12 days		12 17 52
Red. Obs.		12 17 52

BAGHDAD.

Sights for Diff. Long. between Koijunjik and Baghdád.

APRIL 18TH, 1852.

Altitudes, Sun's L. Limb.

Time by D. 12859	Alt.	Alt.	Alt.	Alt.	Alt.
h. m. s.	94 34 10	94 43 20	94 49 50	94 58 50	95 19 00
9 21 13.5	47 17 5	47 21 10	47 24 55	47 29 10	47 39 30
9 21 34	+ 15 9	+ 15 9	+ 15 9	+ 15 9	+ 15 9
9 21 54	47 32 14	47 36 19	47 40 04	47 44 19	47 54 39
9 22 15.7	79 6 7	79 6 7	79 6 7	79 6 7	79 6 7
9 23 9.7	83 19 40	83 19 40	83 19 40	83 19 40	83 19 40
110 06.9	159 55 01	160 03 06	160 05 51	160 10 06	160 20 26
9 23 02	+ 23	80 01 03	80 02 55	80 5 3	80 10 13
+ 23	9 22 25	82 24 44	82 23 51	82 20 44	82 15 34
+ 44	9 23 00				
2 57 40	6 25 29				
13	0.00790	0.00790	0.00790	0.00790	0.00790
5 34 31	0.07808	0.07808	0.07808	0.07808	0.07808
	9.24039	9.23892	9.23758	9.23604	9.23329
	9.73957	9.73917	9.73880	9.73837	9.73734
	9.05599	9.05403	9.05231	9.05064	9.04556

II. Diff.	h. m. s.	h. m. s.	h. m. s.	h. m. s.	h. m. s.
53.35	2 37 40.3	2 37 19.2	2 36 59.9	2 36 37.7	2 35 44
5	9 22 19.7	9 22 40.8	9 23 00.1	9 23 22.3	9 24 16
30 1/2	- 43.3	- 43.3	- 43.3	- 43.3	- 43.3
5 1/4	9 21 36.4	9 21 57.5	9 22 18.8	9 22 39.0	9 23 32.7
292.28	9 21 13.5	9 21 34	9 21 54	9 22 15.7	9 23 9.7
- 4 52.23	23.9	23.5	23.8	23.3	23.0
10 58 45.7	23.5				
Decl. 10 53 53.5 N.	23.8				
90	23.3				
P. D. 79 06 06.5	23.0				
	115.5				

D. 59. S. T.	23.1	D. 12859. F. M. T. Koijunjik, April 13th	5 59.66
D. 60. S. 59	5 45.85	Gain in 5 days, at 7.818 s. daily	+ 39.09
D. 60. S. M. T.	6 8.95	D. 12859. F. M. T. Koijunjik, April 18th	4 38.75
		D. 12859. S. M. T. Baghdád, April 18th	+ 23.1
		Diff. Long. in Time	5 01.85

H. Diff.	573		
5	2 36.5		
30 1/2	236		
5 1/4	48		
	3.199		
	0 46.48		
Equa.	0 43.281		
		D. 12860. S. M. T. Koijunjik, April 13th	1 07.34
		Gain in 5 days, at 818 s. daily	- 4.09
		D. 12860. S. M. T. Koijunjik, April 18th	1 05.25
		D. 12860. S. M. T. Baghdád, April 18th	6 8.95
		Diff. Long. in Time	5 5.70

D. 12859	= 5 01.85	= Diff. Long.	1 15.58
D. 12860	= 5 05.7	= Diff. Long.	1 16.25
Means give Koijunjik W. Baghdád			1 15.66 W.
By the rate up, Koijunjik W. Baghdád			1 14.15 W.
Means of Rates, Koijunjik W. Baghdád			1 15.5 W.

ART. VI.—*On the Orthography of some of the later Royal names of Assyrian and Babylonian history.*

[Read 18th Nov., 1854.]

TO THE SECRETARY OF THE ROYAL ASIATIC SOCIETY.

SIR,

Baghdad, October 2, 1854.

MUCH as I dislike discussions which have anything of the character of controversy, I am tempted by the interest I naturally take in Cuneiform research, to put together a few explanatory notes, with a view of remedying the confusion that Dr. Hincks's recent publications in the *Literary Gazette*¹ have introduced into certain later portions of the Assyrian and Babylonian history.

I have nothing to say at present to Dr. Hincks's chronology of Sargon and Sennacherib, agreeing as I generally do with his dates from B.C. 722 to 680, but it must not be lost sight of that we both take our stand on the numbers employed in Ptolemy's canon, or rather on the agreement between the canon and the inscriptions, in regard to a consecutive series of dates relatively to each other, and that we are as yet entirely unsupported by Greek, Hebrew, or Egyptian synchronisms. If then it should so happen that there is any radical error in Ptolemy's chronology, the era of Nabonassar for instance not having really commenced on February 23th, B.C. 747, or the subsequent Chaldean dates being improperly adapted to the Egyptian calendar (and Dr. Hincks's own observations on the Assyrian intercalation would seem to show that this is not improbable); if, I say, we are thus founding on erroneous premises, then our conclusions, though relatively correct, will be positively wrong.










Under such circumstances, I am disposed to treat with every respect Mr. Bosanquet's proposed rectifications, founded on astronomical calculations, which it may be presumed are of the utmost precision, and I shall wait for the verification or otherwise of Ptolemy's dates, by the application to his eclipses (recorded as far back as the reign of Merodach Baladan), of the same astronomical test which Mr. Bosanquet has already applied to the eclipses of Thales and Hezekiah, before I undertake either to support or to modify my published views on the Assyrian chronology; but with regard to the historical nomenclature no such reserve is necessary.

¹ See No. 1944, of April 22, 1854, and No. 1959, of August 5, 1854.



Dr. Hincks's views on the later Assyrian succession, so far as I can understand them, may be thus stated:

Sennacherib had two sons; the elder, *Assur-nadin*, and the younger *Assur-akh-iddin* (the Ἀσσυρινάδιος and Ἀσσυράδινος of the canon); and the latter, who was the Esar-Haddon of Scripture, had again three sons, *Assur-bani-bal*, *Assur-yuchura-bal*, and *Shamas-akh-iddan*, of whom the two first reigned successively in Assyria on the death of their father, and the third synchronously with his brothers in Babylonia.

Now this latter triumvirate is certainly fictitious, depending altogether on a mistaken reading of the Cuneiform names; and even the distinction of the two sons of Sennacherib, to which I was formerly opposed, requires some explanation.

The name of the eldest son of Sennacherib, who was placed in the government of Babylonia, on the second expulsion of Merodach Baladan, in the former king's fourth year, is written, on every monument which I have examined, as . On one of the Koyunjik bulls, however, according to Mr. Layard's copy (B. M. series, pl. 61, l. 5), the variant reading is found of . This then is the name which I used to suppose to be the same as Esar-Haddon (for reasons that I shall presently explain), and which Dr. Hincks appears now to read as *Assur-nadin*, regarding the final  either as a separate word ("by name" ?), or as a non-phonetic adjunct. The reason why I formerly confounded this king with Esar-Haddon, whose name is generally spelt as  or , was that I had positive proof of the first and third elements of the two names being identical, and that I thus fancied  or  might be exceptionally used for *akh*; but upon mature consideration I do not think that explanation tenable, and I now propose therefore to read  or  as *Asshur-nadin-iddina*, "Asshur is the giver of the gift."¹

It will perhaps appear strange to Dr. Hincks that I should read

¹ I may here observe that one element of the royal names of Assyria and Babylonia is usually a monogram, representing a verbal root, which may be pronounced as a participle, or the aorist, or even as the verbal noun:  or  thus represents the root *nadan* "to give," and may be pronounced as *nadin*, or *iddin*, or perhaps even as *adin*.












✱ as *iddina*, regarding it as a monogram for the root "to give," absolutely equal to $\llcorner\llcorner\llcorner$, but I believe there is positive proof of this identity; for on one of the Nabonit cylinders found at Mugheir, the king of Assyria who repairs a temple at Babylon, and who can be no other than Esar Haddon, is named $\llcorner \rightarrow \llcorner \triangle \text{𐎶} \text{𐎶}$ *Asshur-akh-iddina*, the last element answering to the ordinary \rightarrow or $\llcorner\llcorner\llcorner$ $\rightarrow \llcorner$; and again, on Lord Aberdeen's stone, which I stated long ago to belong to Esar-Haddon,¹ and which it does, I confess, surprise me to find Dr. Hincks still attributing to a spurious *Shamas-akh-iddan*, there is an example of the same variant orthography; the king's name in col. 1, l. 1, being written $\rightarrow \llcorner \triangle \text{𐎶} \llcorner\llcorner\llcorner \llcorner\llcorner\llcorner \rightarrow \llcorner$, and in col. 2, l. 18, as $\rightarrow \llcorner \triangle \text{𐎶} \llcorner\llcorner\llcorner \text{𐎶}$. In many other names too, such as $\llcorner \rightarrow \llcorner \llcorner\llcorner\llcorner \text{𐎶} \text{𐎶}$, *Merodach-nadin-iddina*, $\llcorner \rightarrow \llcorner \rightarrow \llcorner \text{𐎶} \text{𐎶} \text{𐎶} \text{𐎶}$, *Nabu-nadin-iskun*, &c., the same power is to be recognized.



I now proceed, however, to the more important question of the three sons of Esar-haddon, and I reiterate what I published in the *Athenæum* of March 18th, 1854, that the king in question was succeeded by his son, *Asshur-bani-pal*, and that Dr. Hincks's *Asur-yuchura-bal* and *Shamas-akh-iddan* have no existence. The name of this son of Esar-Haddon, who succeeded his father on the throne, is composed, as usual, of three elements; 1stly, *Asshur*, $\rightarrow \llcorner \text{𐎶}$, or $\rightarrow \llcorner \triangle$; 2ndly, *bani*, the participle of $\text{𐎶} \text{𐎶}$ written $\rightarrow \llcorner$ or $\rightarrow \llcorner \text{𐎶}$; and 3dly, 𐎶 , or $\rightarrow \llcorner \rightarrow \llcorner \text{𐎶}$, *bal* or *pal*, "a son," so that it means "Asshur is the creator of a son."

It is singular that Dr. Hincks should not have discovered that the sign $\rightarrow \llcorner$, amongst its various uses, represents the root $\text{𐎶} \text{𐎶}$, and is pronounced *bani*, as there are hundreds of examples of this employment of the character in the inscriptions;² but it is more singular still that he should have affixed to the letter in question the power of






























¹ See the last note to my letter in the *Athenæum* of March 18, 1854.

² Thus on the Chaldean bricks "builder" of the palace or temple is written indifferently $\rightarrow \llcorner$ 𐎶 and $\text{𐎶} \rightarrow \llcorner$, *banu* and *mubani*, &c., &c.

yuchura,¹ as it involves a double error ; firstly, that of mistaking the letter  for , in the name of     , and secondly, that of attributing the name in question to Nabopolassar, the father of Nebuchadnezzar, instead of to Nabonidus. From the first moment when I examined the Warka tablets in the British Museum, and copied the dates, which Dr. Hincks appears to think he has recently discovered,² I had very little doubt but that the name     referred to Nabunit, and I published this identification above three years ago, (Jour. R. A. S., vol. xiv, part 1 p. 9, note 2.)³ The reading has since been confirmed by a hundred

¹ I may here note, that  the final element in so many Babylonian names, is the monogram for the root  "to protect;" and is, I believe, always pronounced as the participle *vatsur*, or *utsur*, rather than as the aorist *yutsur*.

² These dates, which Dr. Hincks announced to the Trustees as discoveries in April of the present year, were communicated by me to Mr. Birch and Mr. Vaux, early in 1851, on being permitted to examine the Warka tablets, in their rooms at the Museum.

³ The last letter of the name is, in the passage here referred to, incorrectly printed as . The true form is  or , (No. 224 of my alphabet), of which the ordinary phonetic power is *duk*. In this name, I presume that  must be a determinative, and that  represents some object of which the name is *nit*. It is however just possible that the name      may be pronounced phonetically *Nabu-induk*, or *Nabo-induk*, answering in fact to the *Ναβαννίδος* of Abydemus, as quoted by Eusebius, and to the *Ναβόανδηλος* of Berosus, as quoted by Josephus; and in the latter form I would further suggest that the λ was the error of a copyist for χ; at any rate it is quite certain that the same king, whose name is generally written *Ναβόνηδος*, or *Ναβόνιδος*, has also the appellation of *Nabannidoch* and *Naboandel* (for *Naboandech*), precisely as in the inscriptions the two names of     or     and      and      are used indifferently. The explanation also which I would offer of this singular jumble is as follows: the verbal element in names may be pronounced as the aorist or the participle, apparently at option. In this name I suppose the root to be , which is constantly used in the inscriptions with a great variety of meanings; here it probably means "to console," *Nabu-nit* (for *Nabu-nid*, the final sonant being always sharpened) signifying "Nebo the comforter," while *Nabu-induk* is "Nebo consoles you." I confess I have never seen any other instance of a pronominal suffix being added at option in the composition of a proper name; but there must, I presume, be some such irregularity to account for the discrepancy of orthography which occurs both in the Greek and Cuneiform rendering of the name.

examples, Nabunit naming himself on his bricks and cylinders indifferently $\rightarrow \text{Y}$ $\rightarrow \text{E}$ Ξ , or $\rightarrow \text{Y}$ $\rightarrow \text{E}$ $\rightarrow \text{Y}$ Δ $\rightarrow \text{Y}$ Ξ Δ , or $\rightarrow \text{Y}$ $\rightarrow \text{E}$ Δ H LI , and the three several and equivalent forms occurring not unfrequently in the course of the same inscription

I do not pretend at present to explain how it happens that Δ H LI has the phonetic power of *nit*, but the fact is undoubted, and Dr. Hincks therefore must abandon all his readings of *Nabu-bin-yuchur*, *Shamsi bin*, *Ben-Hadad*, *Assur-yuchura-bal*, together with his three sons of *Esar-Haddon*, and a number of other historical illustrations, which he has recently delivered "ex cathedra," with the same confidence that characterizes his announcement of genuine readings, and which are thus calculated to mislead enquiry, and to retard the progress of discovery.

The only single addition which I have to make to my sketch of Assyrian history, as published in the *Athenæum* of March, 1854, is, that in the S. E. palace at Nimrud many relics have been recently found of the son of *Assur-bani-pal*, whom I name provisionally *Asshur-emit-ili*,¹ and that under this king, who reigned probably from B.C. 645 to 625, must therefore be placed both the Scythian inroad and the destruction of Nineveh by the Medes.

H. C. RAWLINSON.

Letter from Dr. Hincks, in reply to Colonel Rawlinson's Note on the Successor of Sennacherib.

Killyleigh, Co. Down, 29th Nov. 1854.




Dear Sir.

I observe that a communication from Colonel Rawlinson was read at the last meeting of the Royal Asiatic Society, containing what he conceived to be rectifications of statements made by me in a report and letter of mine published in the *Literary Gazette*. I trust the Society will accept a communication from me, tending to show that these are by no means rectifications.

Of Colonel Rawlinson's two objections, the first is of little importance. He says that the true name of the eldest son of Sennacherib is not *Assur-nadin*, but *Assur-nadin-iddin*. I have met with this name in three different forms in three different Bull inscriptions copied by Mr. Layard. In one the name is distinctly *Assur-nadin*. In the

¹ Meaning perhaps "Asshur is the chief of (*lit.*, stands over) the gods."

other two an addition to this is found, which I at first read *sumi*. Afterwards, I found an explanation of the *whole* conclusion of the name on a tablet in the British Museum, from which I inferred that it should be pronounced *nadin*, without any addition. Unfortunately I have mislaid my notes of the inscription on this tablet; and I am therefore unable to give my reasons for thus reading it more specifically than I have done. It is a matter of but little moment.

All the other points of difference to which Colonel Rawlinson has referred in his communication may be reduced to this:—A certain royal name appears on tablets in the British Museum, and on bricks found at Babylon on the river side, which Colonel Rawlinson believes to be a variant of the name of *Nabu-nahid* (or, as he calls him, *Nabu-nit*), who began to reign in 555 B.C.; but which I believe to be a variant of the name of Nabopolassar, who began to reign seventy years earlier. The question is, which of us is right? That it is one or other of these kings seems pretty evident; for the father of this king is mentioned, and he was not a king. He was, according to Colonel Rawlinson, *Nabu-dirba*, and filled the high office of "*rubu-emga*." Colonel Rawlinson has adduced, in support of his theory, a statement of Berosus that Nabunit executed some considerable works at Babylon; but Berosus mentions the outer walls of the city as all that he built; whereas the bricks are from the river side. On the other hand, in the great inscription at the India House, Nebuchadnezzar distinctly mentions these works by the river side, as having been completed by himself; they having been commenced by his father, Nabopolassar, whose bricks might, therefore, be naturally expected to be found in their foundations. Besides, if Mr. Layard's copies be correct, the final character in the disputed name is interchanged with one which is interchanged with the character which ordinarily expresses the last element in the names of Nebuchadnezzar and his father,—*yuchur*, as I read it. That is to say,  is interchanged with , which is interchanged with . On these grounds, I must retain my opinion as to the person to whom this name belongs; and of course I attach no weight to the objections brought against my other readings, that they are dependent upon, or connected with, this. The rectification which appears to me most needed is that Colonel Rawlinson should cease to attribute to Nabunahid the bricks and the buildings and the parentage of Nabopolassar.

Believe me to remain, yours very truly,

E. Norris, Esq.

EDW. HINCKS.

ART. VII.—*Notes on Abu Shahrein and Tel el Lahm.*

By J. E. TAYLOR, ESQ.

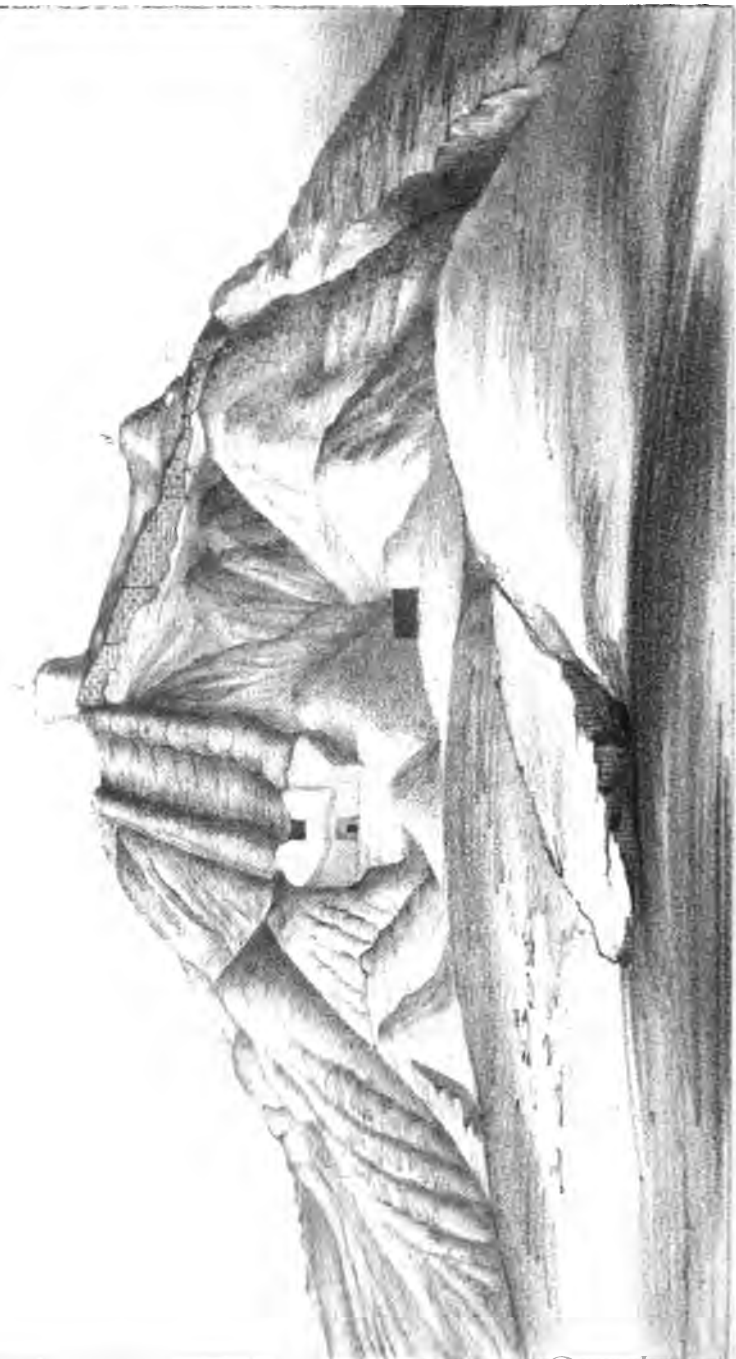
[Read 5th May, 1855.]

ALTHOUGH my visit this year to Abu Shahrein has been unproductive of any very important results, yet the description of the ruins will, I hope, prove sufficiently interesting, to render the transcription of the rough notes I made upon the spot, not altogether superfluous.

The first aspect of the ruins, when approaching them from the Hazem, is that of a ruined fort, surrounded by high walls, with a keep or tower at one end, situated on an eminence, in the centre nearly of the dry bed of an inland sea. They are situated, in fact, in a deep valley, for the most part covered with a nitrous incrustation; but with here and there a few patches of alluvium, scantily clothed with the shrubs and plants peculiar to the desert. This valley is bounded on the east by the low pebbly and sandstone range called the Hazem, which separates it from the plains around Muqeyer and the Euphrates. Its boundary towards the south is the Qassaim Dafneh, which joins on the Qassaim itself, the boundary of Abu Shahrein to the west. I may here remark that the Hazem does not join on to the Qassaim Dafneh, but ends nearly opposite to it, in a bunch of mounds, called the Ghanar. Between it and the Qassaim Dafneh is a deep gorge, which leads the superfluous waters of the Khānégā¹ into that part of the Abu Shahrein valley called the Suleybea. This in the rainy season becomes a perfect sea. In summer, the Suleyb and other tribes who encamp here, dig wells in its lower portions, which supply them with brackish water. In winter, although slightly saline, the water is more palatable. The Hazem near this place rises as steep and perpendicular as a cliff, and is composed entirely of a soft kind of sandstone.

The Qassaim is a ridge composed of sand and pebbles, which forms an almost uninterrupted boundary to the low country bordering on the Euphrates, and ends in the desert, nearly opposite Shenafieh, a mud fort and village on the Euphrates, not far from the Bahr ul Nejef. Beyond the Qassaim, but parallel to it, and stretching equally as far, is the stony district of the Hejerra, so called from the numerous blocks of black granite with which it abounds, and which are indigenous to

¹ The Khanega is a species of Wadi, which, from its low level, collects rain water in considerable quantities. When completely full it bursts over the country. The greater part of the water finds its way to the Suleybea. The Khanega is about sixteen hours south-west of Sūk eah Shuiukh, and is a favourite camping-ground of the Dhefyr.



RUINS OF ABOU CHAHBEYK IN THE SOUTH

From a sketch by

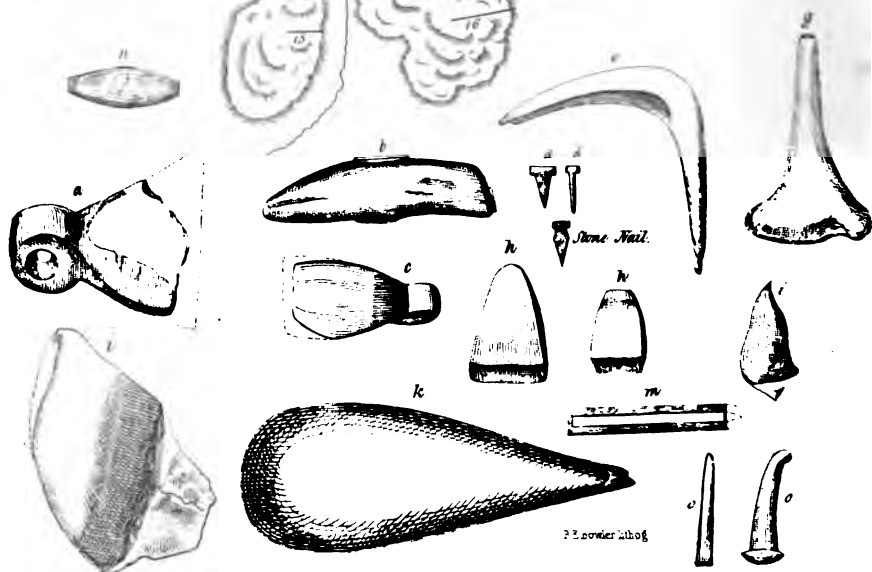
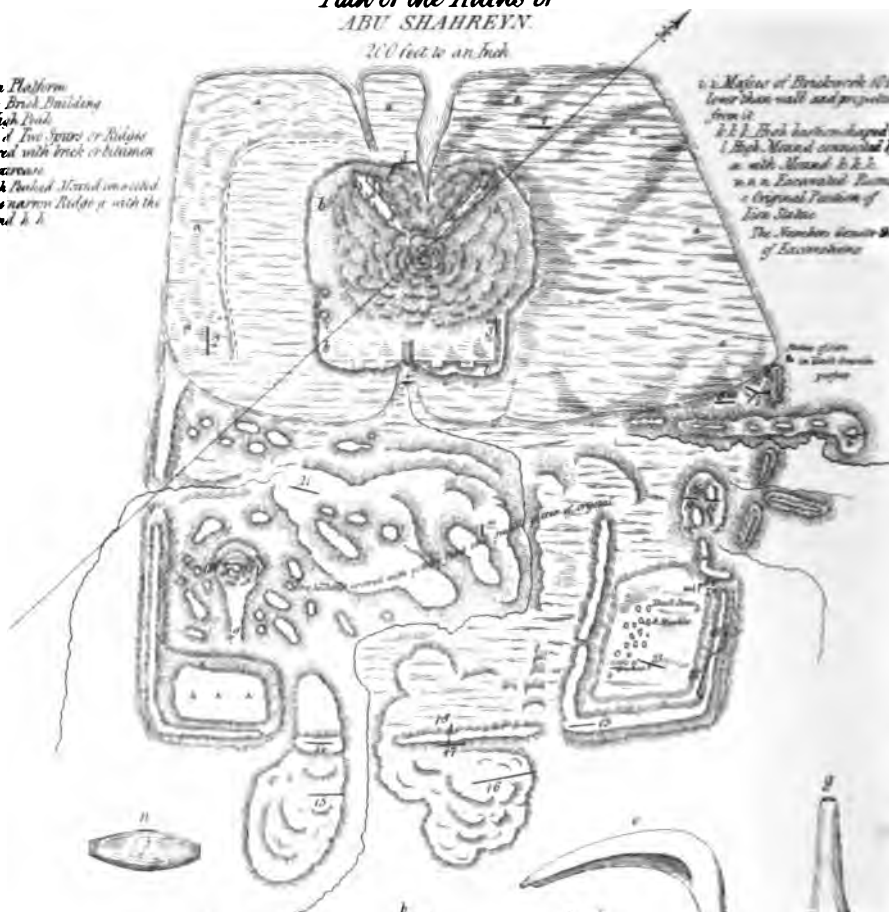
Plan of the Ruins of ABU SHAHREYN.

PL. II.

200 feet to an Inch

- a a a Platform
- b b b Brick Building
- c High Wall
- d d d Two Towers or Bridges covered with brick or basalt
- e Staircase
- f High Pointed Mound connected by the narrow Ridge g with the Mound h h

- i i i Layers of Brickwork of that lower than wall and projecting from it
- k k k Brick bastion-shaped mound
- l High Mound connected by ridge m with Mound h k k
- n n n Enclosed Rooms
- o Original Position of Lion Statue
- The Numbers denote the Sites of Excavations



Working Implements and Knives of baked Clay and Flint.
found among the Ruins and Mounds.

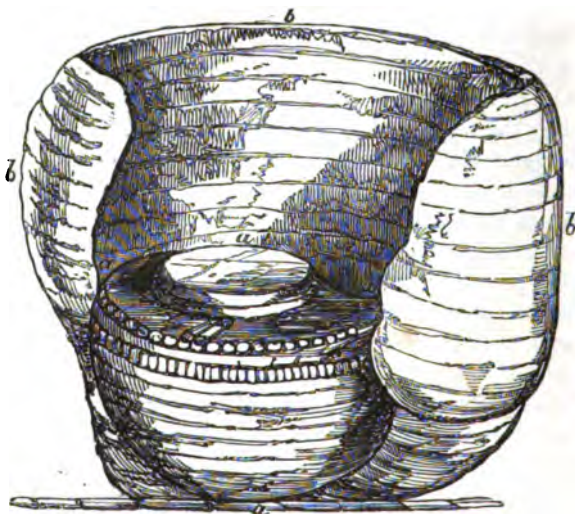
a Hatchet made of baked clay, b Hammer one with sharpened off and indented for putting c Hatchet made of baked clay, d e Nails, f An instrument like a Sickle or Scouring made of baked clay, g a Chisel or Scoop made of baked clay, h h (Knives) made of Stone, i j These Knives k an Instrument made of Flint sharp edges all round, m Double edged Flint Knife, n Stone head of Hammer, o Clay Instruments probably Nails

this district. Towards the north the valley is entirely open to the Euphrates. Its whole breadth across may be about fifteen miles. In a north-west direction, and half-a-mile from the big ruin, is a small mound; nearly west is another, a mile and a half distant; and south-east is a third, a mile off. All these are small low mounds, full of graves, funereal vases, and urns. Half-way between the first mound and the ruins, are the traces, though faint, of an ancient canal, six yards broad, and at either side a small hillock covered with fragments of brick.

The plan in Plate II. accompanying these notes will give an idea of the general view of these ruins. They rise abruptly from the plain, and are not encumbered with the masses of rubbish usually surrounding similar places. It will be seen that they consist of a platform and wall (these are twenty feet high), with three openings, the former sites of gates; and a large building at the north end. The height of this latter, from the level of the platform, (*a, a, a, &c.*) to the high peak (*c*) is, as well as I could measure it, seventy feet, allowing for the slope occasioned by the mass of debris surrounding it. The shape of the building is pyramidal, gradually narrowing from the base upwards; and the whole is composed of a solid mass of sun-dried brick, which equals stone in hardness; and is cased with a wall of kiln-burnt brick, five feet seven inches thick at the top. The summit of the first stage of the building is reached by the staircase at (*e*), and an inclined road leads up to the basement of the second stage, which is represented by the high peak at (*c*).¹ The narrow ridges (*dd — d d*) are the remains of the *escaliers*, which terminated either side of this road. One part only of the south-eastern wall exists in tolerable preservation; the north-eastern is just visible above the mass of debris that has accumulated about it; and the south-western, if any existed, is scarcely traceable, the mound at this point being worn away to the level of the platform. To the north-west no traces of walls are to be seen. The south-east wall has four bastions, running straight down, and which do not partake of the pyramidal form peculiar to the general building. The north-east wall is perfectly plain, and from what little I could trace of the remains of the south-western it must have been the same. I may remark that at this corner there are no heaps or mounds, as at the other portions of the pile, with the exception of two small hillocks, situated about thirty feet from each other; between these is a clear

¹ A sketch is subjoined of this part of the pile, shewing the staircase and peak, and that part of the wall which exists in the best preservation. To the right of the peak, at *d*, is the highest part of one of the *escaliers* of the inclined road, at the north-west side. See Plate I.

space. The staircase at (e) is fifteen feet broad, and seventy feet long, measuring along its inclined plane. The marble slabs¹ that formed the steps were still plentifully scattered over it, as well as smaller pieces of the same material, bored through the back. The *escaliers* were of brick (four feet broad), and all bearing the usual Abu Shahrein inscription. The bed of the staircase was extremely hard sun-dried brick, under which was a fine sand. At its foot were the remains of a column of peculiar construction. Owing, I presume, to the difficulty of transporting blocks of stone, sufficiently large to form a column of the size indicated by the ruined shaft that remained, recourse was had to a novel expedient:—slabs of sandstone were procured from the neighbouring Hazem, about twenty inches square and four thick, which, disposed in a circular form, and joined together by



a a a inner column.

b b b outer one (composed of lime, pebbles, and small stones), encircling inner one. *b b b* is merely the outer layer of casing to this column. From *b* to *a* was a solid mass of the material described; this I dug out, to assure myself of the formation and shape of the column. After completing, there remained the hollow and circular space, as shewn in the sketch.

The shaft is slightly inclined to one side.

lime, formed the chief material; between each layer were cylindrical pieces of marble, and the whole had a thick coating of lime; successive

¹ The blocks were twenty-two inches long, thirteen broad, and four and a half thick; the smaller pieces from two to four inches square: all were well polished. The smaller pieces had remains of copper bolts still remaining in the holes at back.

layers of which, mixed with small stone and pebbles, were laid on till it had attained the desired size and thickness. Its base was shaped like a bowl, and rested upon a layer of sun-dried bricks, under which again was fine sand. I have attempted above to give an idea of the relic, as it appeared after clearing it from the rubbish that surrounded it. At the other side of the stair I could just distinguish that a second one had formerly existed. Between them was a solid, thick wall of lime, firmly attaching to the sides of each. As at Muqeyer, a road, and not a staircase, led up to the second stage. The summit of the pile is comparatively free from rubbish; the fallen brickwork, therefore, which has nearly covered the remains of the walls, must, I presume, have been portions of the walls themselves, or the brick casing of the second story. There are sufficient remains to prove that a small chamber originally crowned the second stage. Pieces¹ of agate, alabaster, and marble finely cut and polished, small pieces of pure gold,² gold-headed and plain copper nails, cover the ground about the basement of the second story, the former in considerable quantities. These fragments are also found along the ridges (*dd — dd*), and around their base. They all sufficiently attest to the highly ornamented nature and rich embellishment of the sacred room at the top of the pyramid. Digging down the extreme eastern portion of the south-east wall, I came upon solid masonry, projecting from and seemingly joining on to the wall. It did not seem sufficiently regular for the original building, and is probably a part of the wall that has fallen from the summit of the pile. This is the highest part remaining of the brick casing; the bricks composing it are inscribed not only on their face, but on the sides also. Small holes (three inches square) occur, a few feet apart, along the whole face of the wall; these run into the pile, and are filled with wood. The north-eastern wall terminates abruptly after running for ten feet into the mound, nor was I able, by my subsequent excavations, to trace it any further north. To the north-west I could see no trace of walls, nor did I discover any in the trenches I dug in that direction. The whole of this pile, as in common with the other mounds and remains in these ruins, rests upon sand. From numerous excavations in different parts, I was able to verify this extraordinary fact, the sand being confined by a coating of sun-dried brick. This

¹ These pieces are from half an inch to two inches long; the latter are an inch broad, the smaller ones in proportion. All of them are bored through the back.

² The gold is thin, and may have been used to ornament a dome or wall, the gilt-headed nails being used to fix the plates. On all the metal nails found here traces of gilding were distinct. These have, however, been unfortunately removed, from the rubbing of one against the other; they having got loose in the case in which they were packed. One very good specimen however remains.

had, in general, been worn away, and was only to be seen immediately under the foundations.

The platform ($\alpha \alpha \alpha'$) upon which the principal building stands, is composed for the most part of a massive wall of sandstone, twenty feet high, backed by beaten clay. Immediately about the ruin there is a pavement of kiln-burnt inscribed brick; under this a layer of clay for two feet, and under the clay fine sand. I attempted, in one trench and shaft on this platform, to dig down to a more solid foundation, but after digging, with incredible labour to the men (owing to the sand constantly pouring down the sides, and filling up their work) to some depth, I was obliged to desist without attaining my object. The dotted line in the platform is about two feet higher than the rest, and from this to the base of the pile large pieces of limestone appear above the ground. In the trench 2, the limestone casing was about twenty feet broad; I cut along it for some distance, deepening as I went, without, however, any results. The first few layers of stone were cemented together with bitumen; deeper, they were merely joined by mortar. The rough sketch I now give of a section of this part of the platform will show its construction more completely.



The spot marked *f* in Plate II, is a high peaked mound, some ten feet higher than the adjacent wall. It is composed of sun-dried brick, on the top of which is a small building, containing the remains of two chambers.¹ Large pieces of sand and limestone were resting upon the tops of the walls of these chambers, which were full of sand. I cleared the sand from them, but I found nothing. The walls were coated with a thin layer of plaster, alternately streaked with red, black, and white lines, three inches broad. Some ten feet below the level of the chamber, I dug a tunnel through the mound, but obtained only fragments of pottery and small pieces of hard clay, shaped

¹ Plate II.

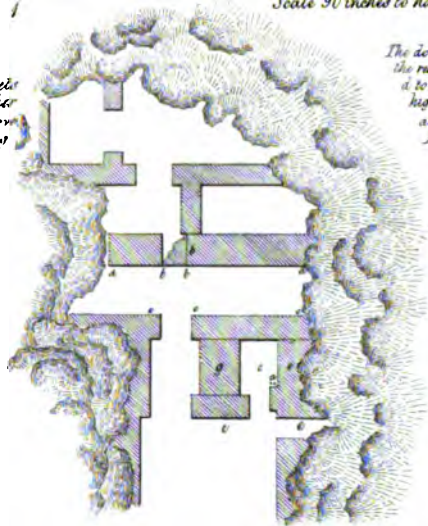
² See plan of these chambers, in fig. 3, Plate III.

Fig. 1

Scale 90 inches to half inch

The Floor of these Vaults bricked.
At a in the chamber c were found
two Vases filled with inscribed Tablets.
The Vases were one above each other
and were placed on a brick floor above
there was also another brick floor.

The dotted Wall a. b. is only 4 ft high,
the rest of that Wall from b to d. & from
d to h 12 ft high. Walls c. e. e. c. 16 ft
high. Wall a. g. seems a kind of step
and is only 2 ft high.
All the rest 5 feet high.



ABU SHAHREYN.

Fig. 2.

The Doorways 1, 2, 3 were found
blocked up with brick.

Scale 24 feet to 1 inch.

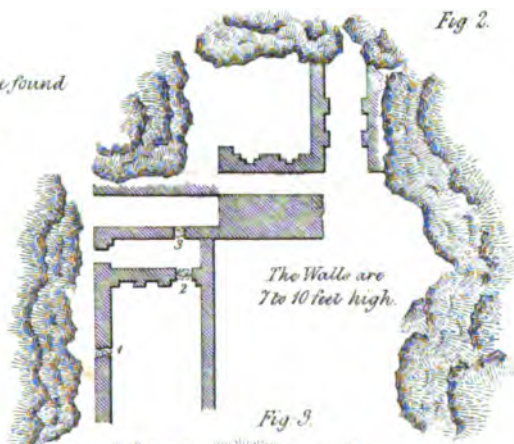
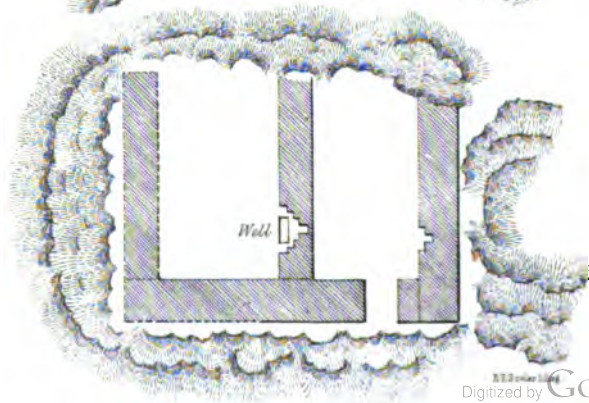


Fig. 3.

The Walls are
7 to 10 feet high.



like an egg. The trenches 11, 12, 13, 14, and 17 gave nearly all the same results, that is to say, a massive stone wall resting upon sand;¹ their height, as stated before, twenty feet, but their breadth varying from four to eight feet. The wall bared in the trench 11, is nearly on a level with the plain; it had three small walls of single brick, joining on, and at right angles to it, and running towards the plain; they were four feet apart from each other. Further inside the mound (trench 12) another limestone wall runs parallel to it, and both rest upon sand.² On first opening the trench, No. 17, I was met by a brick building. This consists of two bastions, of a pyramidal form, joined to each other by a wall, formed of a succession of small gradines, receding from the bottom, like the bow of an arch. After digging into the mound, on either side, for a few feet, I came upon the usual stone wall, joining it on either side. The brick building, which was constructed with bitumen, went some way into the mound, and then ended abruptly. Both the wall and building rested upon sand. The bricks, none of which were inscribed, had a curious shape, thin at both ends and thick in the middle, as in the margin; the under part perfectly flat. Below is a sketch of this building and wall.



Walls *a*, *a*, seven feet high. Bastion *b*, eight feet high; breadth at top one foot and a quarter; at bottom four feet. Bastion *c*, eight feet high; breadth at top two feet and a quarter; at bottom five feet. Breadth of gradines two feet—of limestone wall, six feet.

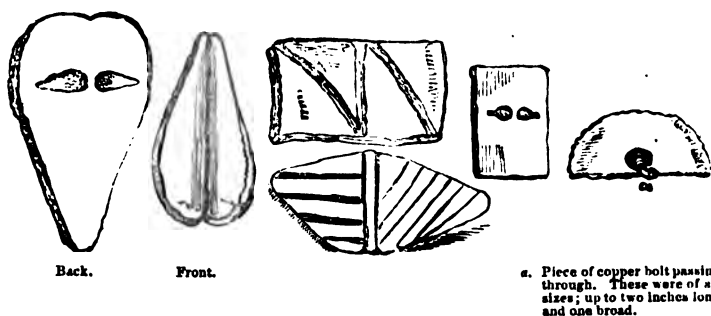
¹ In some places these walls were on a level with the plain; in others some ten feet above it, and resting as usual on sand.

² In both these trenches, bricks with two and some with three holes through them, were frequent.

Behind the limestone wall, as far as the level of its summit, was sand; and then masses of fallen stone, mixed with fragments of plain stone, cylinders, and cones. I may note also the presence of many pieces of polished marble, perforated at the back, and a species of thin tile, all without a vestige of a character. The trench 16 was commenced on a level with the surrounding plain: as I was curious to ascertain if I should still encounter the usual sand foundation, I went to the depth of twenty feet, keeping the same level for fourteen. Eight feet from the top was a mass of limestone and brick, mixed with fragments of vases and small pieces of polished marble used for tesselating; below was all sand: after digging, therefore, beyond the centre of the mound, I removed the workmen. I have been thus particular in describing these excavations, in order to show that these massive walls and remains of buildings rested simply upon sand; nor could I, at any other place, discover a more solid foundation. Large masses of sand and limestone, with brick, bitumen, small pieces of marble, and fragments of plain cones and cylinders, resting upon beds of sand, was the general formation of all these mounds and ruins. In some of the trenches curious shaped tiles or small bricks were discovered of the shapes shown in the margin; about half an inch thick, and six long; but nowhere did I come upon any building, or portions of building, in which they were used. In the north corner of the south-east mound, (at *n*), I cleared a set of chambers, which were, however, entirely destitute of anything of interest. The walls were of sun-dried brick, and the flooring of beaten clay, resting, as usual, upon a bed of sand. I give a ground plan of these chambers in fig. 2, Plate III. The walls were covered with fine plaster, rudely painted. On one was represented the figure of a man holding a bird on his wrist, with a smaller figure near him, in red paint. The whole painting and design was of extremely rude execution. Scattered over the low mounds and ruins enclosed by the walls, I picked and dug out several interesting relics. These I have attempted to depict in the lower half of Plate II. They consisted of hatchets, hammers, nails, and cutting instruments, made of baked clay, stone chisels and nails, flint knives, and a cutting instrument (*k*) also of flint. An instrument like a sickle exists in considerable quantities. This is precisely similar in shape to the "Qosan," or iron sickle, used by the cultivating Arabs of the Karun, to the present day, for reaping corn, and is so called from its shape resembling a bow, (Qose, قوسي). A flint instrument, marked *m*, on the same sheet, seems to me particularly adapted for forming



the characters on cylinders and tablets previously to hardening them.¹ The mounds were also literally covered with conical pieces of baked clay, about a quarter of an inch to half an inch in diameter at the bottom (o), and gradually tapering to a point;² others had a rounded base, like the head of a big nail, and the point curved round (o). In nearly all the trenches were found marble and limestone cones, from four to ten inches long. Some of them had their bases painted black, and a rim round the edge filled with copper. They were one to three inches in diameter at their base: none were inscribed. I here give a rough sketch of the numerous pieces of marble, alabaster, and agate, perforated at back, so common here.³



a. Piece of copper bolt passing through. These were of all sizes; up to two inches long and one broad.

From the general results of the excavations it would appear, that the temple and surrounding buildings were deserted some considerable time previous to their total or even partial ruin. We have the best proof of this in the chambers at *u*,⁴ (Plate II), where the sand filling them is actually higher than the walls themselves, and the roof (which was, I presume, a dome) resting upon them. No traces of stone, wood, or copper, did I find on the flooring of these rooms, or of those at *f*.

¹ They are found all over the mounds in the Jezireh and Iraq, particularly at "Manjûr" mound, which is situated in the Dujeyl district, or "Muqatta."

² Mr. Loftus discovered at Warka a building, the whole of whose external walls were ornamented with a mosaic formed of these cones. They were laid horizontally, bedded in cement, with their bases outwards; and arranged in a great variety of geometric patterns, forming not only a beautiful, but a most durable mode of decoration.

From the number of fragments discovered at various places, it seems to have been one of the most usual decorations employed in Lower Babylonia. A drawing, full size, of one of the cones, with an elevation of a wall decorated with them, was published by the Assyrian Excavation Fund in their first Report.

³ These are of all shapes; heart-shaped, oval, circular, square, and some few shaped like a ball.

⁴ And room at top of *f*.

Some parts of the roof rested upon the tops of the walls. These were of brickwork and stone, and of a curved shape, which has led me, as I have stated above, to presume these rooms were domed. On the same mound were huge blocks of stone, marble and granite, resting upon sand; some five feet under which were the remains of walls of sun-dried brick. A traveller first visiting these ruins would be inclined to think that numerous and interesting remains existed beneath the mounds he was traversing; and with reason; for he would see blocks and pieces of marble, rough and polished, of different colours of the most beautiful hues; fragments of bowls, vases, and coffins, in crystal, marble, and alabaster; gilt-headed nails, curious bricks, and tiles of original shape and composition;¹ and lastly, and the most curious and interesting, the clay hatchets and hammers, the flint knives and styles, stone and clay nails, and a hundred other objects, so palpably denoting a remote period, and one of the earliest stages of civilization.

In conversing with parties of the Dhefyr, who occasionally lodged in my mutheef, on their way to the encampments of their tribe further inland, they informed me that a tradition prevailing among them, with respect to the valley of Abu Shahrein and the ruins of Qaseyr, (further inland), was, that the valley was formerly a sea or lake, connected with the Euphrates (some of them said that the Euphrates ran through it), and that the Qaseyr (small castle), a brick ruin five hours west of Abu Shahrein and situated on the pebbly ridge of the Qassaim, was the "Megdem," or landing place, for boats conveying stores for the towns and villages between it and "Nejd."² I do not presume to theorise upon this story, in connection with Abu Shahrein and its peculiar site, but am content to leave it to abler hands, who may perhaps successfully apply the tradition, with the information to be obtained from ancient authors, to the valley and ruins I have attempted to describe.

TEL EL LAHM.

Previously to visiting Abu Shahrein, I excavated for a few days at Tel el Lahm. These remains are three hours south of Sūk esh

¹ Some of these bricks seemed to me to have been fashioned from a species of sandstone, or some composition of which sand was an essential ingredient.

² A species of bivalve is found in considerable quantities among the ruins. It is evidently a sea-shell, and called, I believe, in common conversation, a "carbuncle." Its colour is red outside, and it is covered with jagged points all over the outer surface.

Shuiukh. They consist of two mounds of some height, joined to each other by a chain of lower ones; around and joining them are other smaller mounds and ridges; the whole does not exceed half a mile in circumference. I dug to a considerable depth in many places, but, beyond brick pavements, I saw no traces of buildings. Some few of the bricks had remains of cuneiform inscriptions on them, but so defaced as not to be worth the inconvenience attending their transport. In one of the trenches I obtained a perfect inscribed clay tablet; this was the only relic of interest discovered here. In other trenches I exhumed numerous coffins, formed of two large jars, precisely of the same shape as the largest kind at present used in Baghdad for containing water, joined together by a bitumen cement. They were disposed in regular lines, one above the other, and lying on their sides. In each was a skeleton, with a clay vase near the feet, and a dish of the same material near the head, which was generally turned towards the north.¹ There were no traces of brickwork, either below or at the surface (as at Muqeyer), confining or terminating the places of sepulture; but between the lines of jars was a thick layer of hard sun-dried bricks. At the back of the Tel, and between it and some low mounds, at present used by the Montefik Sheikhs as a burial place for their chiefs, the old bed of the "Cherri² Saadeh," or "Saiedeh," is distinctly visible, running towards the marsh formed by the river Euphrates on its right bank, and coming from and apparently skirting the pebbly range of the Hazem. On my return from Sūk esh Shuiukh to Zobeyr and Busreh (by land), I again crossed the Cherri, near the Tel Biut es Saiegh, seven hours south-east of Sūk; but its track was soon lost in the marsh. Its onward course is, however, easily traced by sounding, till it emerges again from it, and enters the pebbly plain near Ledha and Shubeyka, five hours from Zobeyr, on the Sūk road.³ Here the Cherri seemed to bifurcate, one branch, and apparently the oldest, running towards Chueybedeh and the Berisseea; and the other towards the extensive ruins of old Busreh.⁴ The bed of the former was elevated above the ground, and passed close to the isolated ruin of the Tubeh.

¹ These remains were in much better preservation than those at Muqeyer and Abu Sharein.

² "Cherri" is a corruption of the Arabic word, "Kerri," i. e. dug, excavated; therefore the same as canal. The Arab tradition is that it was dug by "Saiedeh," or "Saadeh," the wife of "Bukhtnasser," from Hit to Abadan.

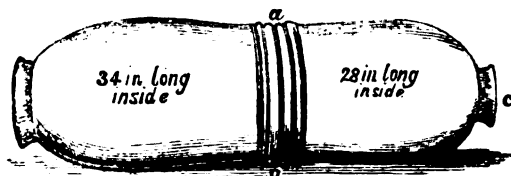
³ The general depth of the marsh is three feet, while the soundings along the supposed track of the Cherri give six.

⁴ This branch is not called the "Cherri Saadeh" by the Arabs.

MUQEYER.

From Abu Shahrein I proceeded to my old ground at Muqeyer. I opened one long trench and two smaller ones, at right angles to it, in the long west mound. The former was to run along its whole length towards the centre, but before completing it I was obliged to leave. After digging to some depth I came upon the brick vaults, a plan of which (fig. 1, Plate III.) accompanies this paper. Here I found two jars, filled with clay tablets, in envelopes of the same material. The impressions of the seals, in good relief, were easily distinguished on the outer cover. In tunnelling along the pavement of these vaults I found several pieces of inscribed cones, or priapi; I regret none of them were perfect. I cut across the low, long ridge to the east of Muqeyer, in two places. It turned out to be a burial ground. From this spot I procured one or two small inscribed clay tablets, and the figure of a man in terra-cotta. The figure was represented in the naked state; his head-dress was the same as those seen on the large Nimrúd bulls, with the horn on either side. The beard was long, thick, and curled. In one hand he held a duck or goose, and in the other a curved instrument like a scimeter. Round his loins was a girdle; one precisely similar to this is universally worn to the present day among the Arabs, round their naked bodies, and is called by them "sebtch."

In the low mounds immediately north of the big brick building I opened several trenches; they were all full of coffins of a better style, but of the same form as those found at Tel el Lahm. Below is a sketch of one.



Jars one inch thick, diameter inside mouth of jar twenty-four inches. From *a* to *a* is an open space of a quarter of an inch, hermetically closed by bitumen. At *c* is a small air-hole.

As I have stated before, these receptacles for the dead are simply two jars placed, as in the sketch I have given, in close contact with each other, and then more durably connected by a thick band of bitumen.¹ In the majority of these coffins, however, one jar is smaller at

¹ In several of the coffins I observed large cracks; great care had been taken, however, to close them effectually, by a thick layer of bitumen, along their whole length.

the mouth than the other, and so allowing it to slip in to the larger orifice for three or four inches; they were then firmly fixed by bitumen. At one end of every coffin is a small hole, which has evidently been made to allow the gases generated from the decomposition of the body to escape, which otherwise would have burst the jars. In every one of these coffins were the usual dishes and vases, mostly of clay, but in one or two cases of copper. In each one was also an arrow-head of copper, and round the feet large and massive iron rings; the fingers had smaller rings of the same metal.¹ The female skeletons were known by the beads about the neck, and the absence of the arrow and iron bangles. In one coffin, containing a female skeleton, in the same mound, I found a perfect scarab, with a hieroglyph on one side, two or three pieces of gold ornament, and several small fragments of carved ivory. In the long north mound I procured several pieces of a large clay (unbaked) cylinder. From the numerous small fragments of inscribed cones or priapi, found in the trenches in this mound, I think that, were the excavations carried deep enough, and throughout the whole length of the vaults covered by this mound, numerous perfect specimens might be obtained. I only regret I was obliged to discontinue my work, before exploring it thoroughly.²

Busreh, January 17th, 1855.

¹ Might not these remains have been those of warriors or captives taken in battle? Smaller iron rings, but broad, were also in some quantity disposed about the feet, and along the sides of the body, as if they had formerly been the links or parts of a chain connecting the two rings or bangles.

² In a mound, near the centre of the ruins, I dug up numerous large conch shells, and several smaller ones of a spiral form, all sea-shells.

ART. VIII.—*Corrections of the Canon of Ptolemy, required in order to place it in harmony with the Solar Eclipses of Jan. 11th, B.C. 689, and May 28th B.C. 585. By J. W. BOSANQUET, ESQ.*

[Read 16th June, 1855.]

IN a paper which I had the honour of reading before this Society on the eighth of July last, I endeavoured to establish—First, that the remarkable astronomical phenomenon which occurred in the fourteenth year of Hezekiah, King of Judah—viz., the retrograde motion of the sun's shadow on the dial, or steps, of the king's palace at Jerusalem, accompanied by some visible wonder in the heavens—must have been the effect of an eclipse of the sun. Secondly, that if the phenomenon was indeed caused by a solar eclipse, it must have been one combining the following distinguishing characters, viz. :—

- 1st, That it should have been visible at Jerusalem.
- 2nd, That it should have occurred within about twenty days of the winter solstice.
- 3rd, That it should have occurred about noon-day.
- 4th, That the occultation should have been on the upper limb of the sun.

And, from independent historical evidence, that it should be looked for in the year B.C. 689 or 688.

Thirdly, that such an eclipse is found by computation to have actually taken place at Jerusalem on the 11th January, B.C. 689, between the hours of eleven and twelve o'clock; that, though from the imperfection of the means of computation it is impossible at present to fix the exact time of central conjunction of sun and moon at that remote date, yet that the tendency of certain proposed corrections in astronomical tables is to bring the time near upon noon-day; and that, since no other eclipse, combining all the above characteristics, could have occurred at Jerusalem within many hundred years, there is high degree of probability that the fourteenth year of Hezekiah was marked by this eclipse, and that the third year of the reign of Sennacherib, which we know from Assyrian monuments was concurrent with the fourteenth of Hezekiah, should also be placed in the year B.C. 689.

The object of the following remarks is, to point out how far it will be necessary to alter the position, in the era of Nabonassar, of the five

last kings of Babylon mentioned by Berosus, who would appear to be erroneously placed in the canon of Ptolemy, on the assumption of the correctness of the proposed date for the fourteenth of Hezekiah and third of Sennacherib; and to fix the dates of the reigns of those five kings, in harmony both with the eclipse of B.C. 689, and with the now ascertained date of the eclipse of Thales, B.C. 585, which is equally at variance with their present chronological position, as is also the record of the earliest Chaldean historians.

This undertaking is in some degree imposed upon me; for, having ventured to dispute some of the most important dates of a long established scheme of chronology, on the ground of the inconsistency thereby produced between sacred and profane historians, I feel called upon to show how a more consistent scheme of dates may be framed in accordance with my view of historical facts: and more especially, because all who treat upon this period of ancient history proceed on the assumption of the undisputed accuracy of the Babylonian canon, which is, in its present form, directly opposed to my arrangement. I am fully aware of the weight of responsibility incurred in venturing to dispute the authority of this supposed venerable record, which has received the sanction of such men as Marsham, Scaliger, Petavius, Ussher, Sir I. Newton, Prideaux, Dodwell, Clinton, Greswell, Ideler, and all modern chronologists; but I do not shrink from the undertaking, feeling confident that I shall be sustained in my opinion, on a closer examination of the evidence of ancient history, and also by the more accurate science of modern astronomy, which is the surest foundation upon which to build a scheme of chronology.

In the first place, the antiquity of the canon of Ptolemy, in its present shape, is greatly exaggerated, when it is supposed to have been compiled in the time of Berosus. I do not deny that the era of Nabonassar, beginning in B.C. 747, was used by Chaldean astronomers at that time, nor that astronomical observations were recorded in the years of that era, with the addition of the names of the kings under whom the observations were made, with the particulars also of the day, month, and year of their reigns; but I deny that any acknowledged list of kings of Babylon, with the dates of their reigns fixed in that era, such as we now see in the canon of Ptolemy, was known to historians, either in the time of Berosus, or for at least two centuries after his time.

Berosus himself was, indeed, both historian and astronomer, and, without doubt, as fully acquainted with the dates of the reigns, as he was with the names he mentions of the successive monarchs on the throne of Babylon. His chronology, I doubt not, was correct; and

I shall presently show that it was greatly at variance with that of the canon, and in conformity with that which I propose.

For the present, it will be sufficient proof of my assertion—that the current version of the canon was not adopted by Berosus—that Demetrius, writing soon after Berosus, in the third century B.C., places the first year of Nabucodonosor, or Nabokolassar, twenty-six years later than the canon; that Josephus, in the first century after Christ, with Berosus in his hands, had no such list of reigns and dates before him as is contained in the canon; and that Clemens Alexandrinus in the second century, Africanus in the third, Eusebius in the fourth, though professed chronologists, had no such authoritative document before them to which to refer for dates.

Nevertheless, I would not be supposed to undervalue the importance and authority of parts of this celebrated canon. Its value consists in the astronomical data upon which it is founded: that is to say, on the series of lunar eclipses observed and recorded at Babylon, which have been preserved in the *Almagest* of Ptolemy, the astronomer of Alexandria. Where it rests upon such data, its authority of course is indisputable. I think, therefore, that Theon's copy may be followed from the first year of Nabonassar, B.C. 747, to the twentieth year of Nabopalassar, B.C. 606, during which period the reigns of Mardocempadus and Nabopalassar are fixed by three lunar eclipses. The reign of Cambyzes, king of Persia, is also fixed by an eclipse; and the reign of his successor, Darius, the son of Hystaspes, by two eclipses towards the latter part of his reign. The position of the five last kings of Babylon, however, from Nabokolassar, or Nebuchadnezzar, to Nabonidus, stands upon no such solid foundation. No eclipse, or other astronomical observation, is recorded as marking the date of either of these reigns. On the contrary, if the solar eclipse at Jerusalem, in B.C. 689, really took place in the fourteenth year of Hezekiah, and the solar eclipse of Thales, in B.C. 585, preceded the fall of Nineveh, and the accession of Nebuchadnezzar to the throne of Babylon, we have direct astronomical authority for displacing the position of those five reigns in the canon.

Let us quote a few instances from Ptolemy's *Almagest*, of the astronomical data upon which the canon is framed, in order to ascertain how far we are compelled to adhere to its arrangement, and how far we are at liberty to question its correctness. In Book iv. ch. 6, Ptolemy writes: "the first of three very ancient eclipses observed by the Babylonians occurred in the first year of Mardocempadus, on the 29th day of the Egyptian month Thoth. The moon began to be eclipsed one complete hour after rising; and the eclipse was total."

Now, by computation, it appears that such an eclipse of the moon occurred at Babylon on the 19th March, B.C. 721, which is the first year of Mardocempadus in the canon. There are two other eclipses recorded with the same particularity, as having occurred in the second year of the reign of Mardocempadus, B.C. 720, to which I need not refer. There is no difficulty with astronomers in computing with accuracy the times and phases of the most ancient *lunar* eclipses; and the three thus referred to having been repeatedly verified, we cannot doubt the correctness of the date assigned to the year of the accession of this king to the throne of Babylon. Ptolemy further states, in the seventh chapter of the same book of the *Almagest*, that, "from the second year of Mardocempadus (18th Thoth) to the 2nd Choiak, in the nineteenth year of Adrian, there are 854 Egyptian years, and 73 days." Nothing, therefore, can be more perfect and precise than the data concerning the position of this reign. The position of the important reign of Nabopalassar, the father of Nebuchadnezzar, is equally well established. In the xivth chapter of the Vth Book of the *Almagest*, we find it written—"In the fifth year of Nabopalassar, which the 127th from Nabonassar, on the 27th day of Athyr, according to the Egyptians, towards the end of the eleventh hour, the moon began to be eclipsed at Babylon, and a fourth part of the diameter was eclipsed from the south." This eclipse is computed to have fallen on the 21st April, B.C. 621; and in that year, accordingly, we find the fifth year of Nabopalassar accurately fixed in the canon.

No astronomical observation marks the reigns of the five Babylonish kings who follow Nabopalassar, as we have already observed, viz. :—

Nabokolassar	=	Nebuchadnezzar.
Ilverodam	=	Evil-Merodach.
Neriglissar	=	Nergal-Sharezar.
Laborosoarchod.		
Nabonidus.		

Nor is there any observation recorded by Ptolemy whereby to fix the reign of Cyrus. But in the reign of Cambyses there is record of an eclipse, which is of the greatest importance, as it is that upon which our present scheme of chronology is chiefly founded. Ptolemy writes, in the xivth chapter, Vth Book—"In the seventh year of Cambyses, which is the 225th from Nabonassar, on the 17th day of Panemoth, according to the Egyptians, one hour before midnight, half the diameter of the moon was eclipsed from the north." This eclipse fell

by computation in July, B.C. 523 ; and thus we collect from Ptolemy that

The 1st of Nabonassar was	..	..	..	B.C. 747
1st of Mardocempadus	..	..	..	721
5th of Nabopalassar ..	..	..	..	621
7th of Cambyzes	..	..	..	523

No one, I presume, would venture to dispute the correctness of any of these dates, nor is it my purpose in any way to disturb them. On the contrary, I accept the canon, as regards the Babylonian kings, as far as the twentieth year of Nabopalassar, B.C. 606, and also the date of the reign of the Persian Cambyzes, as absolutely established.

From the year B.C. 606, however, I begin to differ from the canon, Not only because it is here unsupported by astronomical authority, and also contradicted by astronomical data, inasmuch as the eclipse of B.C. 585 is found to follow instead of preceding the date of the first year of Nebuchadnezzar, as fixed in the canon ; but because its arrangement of the five last Babylonian kings appears to me to be at variance both with the evidence of the most ancient and trustworthy secular historians who have written concerning the period, and directly opposed to the evidence of contemporaneous sacred writers. The only trustworthy authors of secular authority on the subject are Herodotus and Berosus : Herodotus as living nearest to the times in question—perfectly unbiassed and scrupulously desirous of recording truth ; Berosus as the historian who has expressly treated upon Assyrian and Babylonian matters with the most ample and authentic materials surrounding him to draw from. Ctesias and Diodorus, who followed him, whose lists of kings are yet unconfirmed by existing monuments, I set aside as of no great authority, as also all ecclesiastical writers, who are of a much later date, who bring no new matter to bear on the subject, and who are inexact, contradictory, and biassed by their own particular views of sacred chronology.

Now the accounts which we derive from Herodotus and Berosus, when compared together, lead to one and the same result as regards the date of the reign of Nebuchadnezzar, by which reign the other four must be regulated. Berosus, who unfortunately can only be consulted through fragments extracted from his work, chiefly by Polyhistor, Abydenus, and Josephus, the first and last of whom undoubtedly consulted the original work, distinctly tells us through Polyhistor that Nabupalsar, or Nabopalassar, *was king of Assyria* ; and, moreover, that he was the king called by the Greeks Sardanapalus ; and that his reign in Assyria, as all other authorities testify of Sardana-

palus, lasted *twenty* years. Eusebius distinctly states, in more than one place, that Polyhistor copied from Berosus;¹ and this testimony of the Chaldean historian to the fact that Nabopalassar reigned in Assyria is of the deepest importance, as throwing an entirely new light upon this period of history. From the same authority we collect that Babylon had been conquered and annexed to the Assyrian empire in the reign of Sennacherib. So that Nabopalassar, (Sardanapalus) was king of the united kingdoms of Nineveh and Babylon, his throne being at Nineveh: and there he must have passed the first twenty years of his reign, dating, as we have already ascertained, from the record of an eclipse in the fifth year of his reign, i. e., as lord paramount of the Assyrian empire, from B.C. 625 to 606.

Again, copying from Berosus, Polyhistor relates how Sardanapalus reigned *over the Chaldeans* twenty-one years (qu. twenty-nine), and contracted a marriage for his son Nabuchodrossor with a daughter of Astyages,² just before the destruction of Nineveh; and Abydenus, who gives the same history at greater length, tell us that this alliance was contracted by the father of Nabuchodrossor, whom he calls Busalossor (Na-busalossor, or Nabopalassar) during the time when Saracus was reigning at Nineveh; that Busalossor was then acting as leader of the armies of Saracus, and revolted against him, upon which Nineveh was destroyed, and Nabuchodrossor immediately after began to reign.³ So that while Saracus, the successor of Nabopalassar, was reigning at Nineveh, Nabopalassar had become either his vassal or ally on the throne of Babylon.

Lastly, from an invaluable extract from Berosus, preserved by Josephus, and set down in the very words of the Babylonish historian, we find that Nabopalassar reigned *twenty-nine years at Babylon*, and that in his twenty-ninth year he was succeeded by his son Nebuchadnezzar. So that, according to the highest Chaldean authority, Nabopalassar reigned twenty years in Nineveh, and twenty-nine in Babylon,

¹ "From Xisuthrus, and from the time of the Deluge, even to the time when the Medes took Babylon, Polyhistor enumerates eighty-six kings, and mentions them each by name, from the work of Berosus."—Aucher's Eusebius, p. 19. And again, after enumerating the kings of Babylon down to the capture of Babylon by Cyrus, Eusebius writes—"As Berosus briefly relates each event concerning the kingdom of the Chaldeans, so in the same manner has Polyhistor described it."—p. 23. Nevertheless, we may be certain that Polyhistor was giving his own version, not that of Berosus, when he enumerates the Persian kings who followed Cyrus; because the passage does not correspond with the extract given by Josephus, in the words of Berosus, concerning the same events.

² Aucher's Euseb. p. 22.

³ Ibid, p. 27.

together forty-nine years. And this length of reign well accords with his state of infirmity, as described by Berosus at the end of his life. Now the forty-ninth year, counted from B.C. 625, brings us to the year B.C. 578 for the first year of the reign of Nebuchadnezzar; and this I believe to be the true date of the commencement of his reign, falling as it does, and as it should do, a few years after the eclipse of Thales.

But it may be asked, should we not read twenty-one years with Polyhistor and the canon, rather than twenty-nine years with Josephus, in contradiction of the canon, as the length of the reign of Nabopalassar over the Chaldeans? and may it not be the mere invention of Polyhistor, rather than the record of Berosus, that Nabopalassar reigned at Nineveh? My answer is, that there is the strongest confirmation that Polyhistor has correctly copied Berosus in giving a double reign to Nabopalassar, first at Nineveh and then at Babylon; and that he has incorrectly curtailed the reign in Babylon from twenty-nine to twenty-one years, writing *έν* for *έννεα*, in the fact that Demetrius, who was contemporary with Berosus, and wrote in the reign of Ptolemy Philopator, more than one hundred years before Polyhistor, and who cannot but have seen the work of Berosus, one of the valuable contributions to the Alexandrian Library of that day, has expressly fixed the year B.C. 578 as that of the first year of the reign of Nebuchadnezzar. For he tells that the last captivity from Jerusalem, under Nebuchadnezzar, was 338 years and three months before the reign of Ptolemy Philopator, or November, B.C. 222; which leads us to August, B.C. 560, as the date of that captivity; and as this event took place in the nineteenth year of Nebuchadnezzar, his first year, according to Demetrius,¹ was B.C. 578. Such, then, is the distinct conclusion to be derived from Berosus.

The same definite result, as regards the date of the fall of Nineveh, and the rise of the kingdom of Babylon under Nebuchadnezzar, may be derived from a consideration of the words of Herodotus. He tells us that Nineveh was finally taken by the Medes twenty-eight years after the Assyrian empire had fallen under the dominion of the Scythians, and that these twenty-eight years began at the time of the

¹ "Demetrius says, in his work concerning the kings of Judea, that the tribes of Benjamin and Levi were not carried into captivity by Sennacherim; but that from this deportation to the last from Jerusalem by Nabuchadonosor was a period of 128 years and six months. And that from the time when the ten tribes were made captive from Samaria to the reign of the fourth Ptolemy (Philopator) was 573 years (qu. 473) and six months. And from the carrying away from Jerusalem, 338 years and three months. Philo, however, wrote the kings of Judah differently, from Demetrius."—Clemens. Alex., Strom. i.

overthrow of the last Assyrian king, and expired *after the date of the eclipse of Thales*. This period of twenty-eight years, therefore, could not have commenced earlier than B.C. 612, which is in the middle of the reign of Sardanapalus, according to all accounts: and as it did commence with the overthrow of the last Assyrian king, it must be counted from the last year of Sardanapalus at Nineveh, B.C. 606. Now twenty-eight years, counted from, and inclusive of, that date, brings us to the year B.C. 579 for the final destruction of Nineveh, which we have already seen, from Berosus, immediately preceded the accession of Nebuchadnezzar to the throne of Babylon, B.C. 578.

Nothing, it would appear, can be more consistent and precise than this result of a comparison of the two ancient historians. How is it, then, that the compiler of the canon has arrived at a different conclusion? The difference, no doubt, is of very ancient origin, and the cause of it, I think, is to be traced on the face of the document itself.

There are three copies of the canon extant; two preserved by Syncellus, one of which he calls the Ecclesiastical Canon, the other the Astronomical Canon; and a third which has been recovered from a work of the astronomer Theon, of the fourth century. The three copies are agreed as to the number of years to be counted from the reign of Nabonassar to the death of Alexander the Great—viz., 424 years. They are also agreed as to the date of the first year of Cyrus—viz., $\text{Æ. N. } 210 = \text{B.C. } 538$. But they differ from each other in the arrangement of the intermediate reigns, being three different attempts, as I conceive, to adapt the reigns of the kings of Babylon and Persia to the well-known era of Nabonassar, which we learn from Syncellus was first made use of by the Chaldeans for astronomical purposes, and from them adopted by the Greek astronomers of Alexandria. The difficulty then, as now, was how to reconcile the chronology of Persia, the reign of whose second king, Cambyzes, was fixed by an eclipse observed at Babylon, as beginning in B.C. 529, with the chronology of Babylon, whose last king, Nabonidus, was conquered by Cyrus, the supposed predecessor of Cambyzes, about sixty-eight or seventy years after the first year of Nebuchadnezzar,—that is to say, about the year B.C. 511 or 509.* Abundant evidence of the perplexity of chronologers on this point may be found in Josephus and the early ecclesiastical writers. The enigma has remained unexplained even to the present day.

The Ecclesiastical Canon, which gives thirty-one years to the reign of Cyrus, after the fall of Astyages, boldly places the first year of

* This difference of two years, arises from two years more being given, in some of the copies, to the reigns of Evilmerodach and Neriglissar.

Cambyzes in B.C. 507, in defiance of the eclipse of B.C. 523, in his seventh year. This copy of the Canon is altogether the most inaccurate of the three. The true date of the fall of Astyages is, however, preserved in this copy, viz., B.C. 539. And, it is worthy of remark, that the last king of Babylon, Nabonidus, is here declared to our astonishment to be Asytages himself. Such is the mode adopted in the Ecclesiastical Canon of reconciling the conflicting traditions concerning Babylonian and Persian chronology.

The Astronomical Canon shifts the eclipse of B.C. 521 from the reign of Nabopalassar the father, to Nabokolassar the son, placing it also in the seventh instead of the fifth year of that reign: thus violating one of the immoveable data of Babylonian chronology. It retains, however, the true traditional date of the fall of Astyages, and also the length of that king's reign. This was the current copy in the hands of mathematicians in the time of Syncellus; and, like the Ecclesiastical Canon, assumes the identity of Astyages and Nabonidus, the last king of Babylon. The reign of Cambyzes is correctly fixed in this copy.

We now come to consider the arrangement of the third copy of the canon, which has been adopted by chronologers for the three last centuries, as indubitably correct. This copy places the reigns of Nabopalassar and Cambyzes in strict conformity with the dates of the eclipses in their reigns. It also preserves, like the other two copies, the year B.C. 538 as the first year of Cyrus at Babylon. Now there is something very remarkable about this date, and here lies the source of difference between the Canon and Berosus. Though almost every other Babylonian or Persian reign has been considered moveable in one or other copy of the canon, no one has dared to tamper with this date of the first year of Cyrus. Whether it had been definitively settled by Eratosthenes, or whatever may have been the authority upon which it rested, certain it is, that the Alexandrian chronologers, who made use of the era of Nabonassar, considered the year B.C. 538 for the first of Cyrus as firmly fixed, as if it had been determined by an eclipse recorded in the reign. I also accept this as a true date handed down by tradition: though not as the date of the first of Cyrus in Babylon. Probably, at the time it was fixed by ancient chronologers, other data for determining it, than we now possess, were accessible. We may, however, with great precision, determine this epoch from materials now at hand. What, then, was the nature of the tradition? The tradition clearly was, as we may collect from the two copies of the canon we have already considered, that Astyages, king of Media, was deposed in B.C. 539; and that

Cyrus took his throne in B.C. 538. This tradition is preserved also in the apocryphal book entitled *Bel and the Dragon*, a book of very early date, which begins thus: "And king Astyages was gathered to his fathers, and Cyrus of Persia received his kingdom." And then proceeds to describe how Cyrus worshipped Bel in Babylon; showing how the writer supposed that Cyrus succeeded Astyages in Babylon. I will now briefly show that the year B.C. 539 is in fact the year in which Cyrus deposed Astyages; and 538 the year in which Cyrus began to reign in Media.

Cyaxares, the father of Astyages, according to Herodotus, reigned forty years in Media—his son Astyages thirty-five years—together seventy-five years. The eclipse of Thales, B.C. 585, occurred in the reign of Cyaxares: he could not have begun to reign, therefore, more than forty years above that date, or before B.C. 624. He succeeded Phraortes, who was slain by a king of Nineveh: and in the book of *Judith*, we read of a king of Nineveh (Vulgate copy) who, in his twelfth year, slew Arphaxad, king of Media. Nabopalassar, we have seen, was king of Nineveh from B.C. 625 to 606, and his twelfth year was B.C. 614. Phraortes, or Arphaxad, therefore, was slain in B.C. 614; and Cyaxares began his reign in B.C. 613. Now, counting seventy-five years from B.C. 613 inclusive, we come to the year B.C. 539 for the last of Astyages; and Cyrus must have begun to reign in Media in B.C. 538.

The compilers, therefore, of the three copies of the canon have each of them adopted the traditional date of the first year of Cyrus in Media as the date of his conquest of Babylon, and Polyhistor himself would appear to be the originator of this error.

Having thus succeeded in pushing up the last year of Nabonidus from B.C. 511, to B.C. 539, that is, twenty-eight years, the compiler of the third copy, while carefully adhering to all astronomical data, was compelled, in some way, also to raise the years of the four predecessors of Nabonidus to the same extent. This he has effected, not without apparent authority. For, availing himself of the doubtful reading before referred to, which assigns twenty-one years only to the reign of Nabopalassar, he has added one year to the twenty which he reigned in Nineveh; and ignoring altogether the twenty-nine years of subsequent reign in Babylon, he thus extracts the same number of twenty-eight years (the length of Scythian interregnum) which immediately precedes the accession of Nebuchadnezzar, placing the first year of that king's reign in B.C. 604, long before the eclipse of B.C. 585, which is quite inadmissible.

This, then, I believe to be the history of the compilation of the

three copies of this celebrated canon, by which the world has been imposed upon for the last three centuries ; concerning which, Calvisius has declared, that it is "omni auro pretiosior ;" Dr. Prideaux, that it is not to be receded from for the authority of any other human writing ; and on the authority of which, Niebuhr has declared, that the date of the conquest of Babylon, Olymp. 60. 1 = B.C. 538, is as firmly established as the dates of the capture of Moscow or Paris.¹

On the other hand, I affirm, without fear of confutation, that the year B.C. 538 is the date of the conquest of Astyages, and not of the conquest of Babylon ; and that the conquest of Nabonidus by Cyrus, must have taken place somewhere about the year B.C. 511. This was a tradition still current in the time of Clemens Alexandrinus, who states that some in his days placed the overthrow of Babylon, 186 years before the death of Alexander, that is, in B.C. 323 + 186 = B.C. 509. And Orosius, in the fifth century, still continued to argue emphatically for the same date, stating that "Babylon for the last time was overthrown by King Cyrus, at the time when Rome, for the first time, was freed from the tyranny of the Tarquins," (that is, in B.C. 509 or 510.) "The one for the first time was then subjected to the dominion of strangers, when the other for the first time spurned the pride of her native rulers. The one, at that time expiring, laid aside the inheritance ; the other, at the same time, in the prime of youth, began to recognise herself as heir. Then fell the empire of the East. Then arose the empire of the West."²

I will now advert to a difficulty, which might for a moment be raised in opposition to what has been advanced, and apparently on the authority of Berosus himself. At the close of the extract from Polyhistor, found in the Armenian copy of Eusebius,³ from which we have recovered the important fact, that Nabopolassar, according to Berosus, was the king called Sardanapalus, who reigned at Nineveh ; Eusebius writes: "After him, [Nebuchadnezzar]" says Polyhistor, "Neglissar reigned over the Chaldeans four years ; and after him Nabonedus seventeen years. In whose reign, Cyrus, the son of Cambyzes, led an army into the territory of Babylon. Nabonedus went out against him, and being conquered, fled. *Cyrus then reigned nine years in Babylon*, and died in battle on the plains of Daas. After him, Cambyzes reigned eight years. Then Darius, thirty-six years. After him, Xerxes, and the other Persian kings."

Now, if these are the words of Berosus, copied by Polyhistor, they are in strict conformity with the arrangement of the canon : and

¹ Lectures on Ant. Hist., vol. i, pp. 91, 92.

² P. Orosius contra Paganos, l. ii. c. 2 ; p. 74. ³ Aucher, p. 22.

Berosus himself, as Dodwell¹ argues, may indeed have been the author of the canon. They are not, however, the words of Berosus, but merely express the mode in which Polyhistor solved the chronological difficulty of reconciling Babylonian and Persian history. What Berosus wrote concerning the successors of Nebuchadnezzar, down to the time of Cyrus, is copied verbatim and at length by Josephus. In that passage, mention is made of a king not here referred to by Polyhistor, and there is no mention of Cyrus having reigned nine years in Babylon. If Berosus had so written, it is inconceivable that Josephus, with that author in his hands, should have rejected such an authority, and have assigned thirty years to his reign in Babylon before the accession of Cambyses.

That the words, however, are those of Polyhistor, and not of Berosus, is placed beyond all doubt, by reference to a passage extracted by Eusebius from Abydenus, which is in such close conformity with the words of Berosus given by Josephus, that we cannot but conclude that Abydenus and Berosus copied from the same source. So far, however, from supporting the view of Polyhistor, that Nabonidus was deposed by Cyrus nine years before the reign of Cambyses, that is, in B.C. 539, the passage from Abydenus declares the fact which I have already deduced from the fragments of Berosus, viz., that Nabonidus was deposed by Cyrus during the reign of Darius Hystaspes. The passage runs thus, speaking of Nebuchadnezzar: "who after reigning in great majesty, suddenly disappeared, being withdrawn from sight. His son, Amilmarodach, then reigned, who was slain by his son-in-law Neglisar, leaving an only son Labosorach, who came to an unhappy end by violence. Nabonedock was then raised to the throne, to whom it in no way belonged of right. Cyrus, when he conquered Babylon, gave this king the province of Carmania. Darius, however, drove him some little distance away from that region."²

Here, then, is a most ancient Chaldean authority to the fact, that Nabonidus was conquered by Cyrus at Babylon, during the reign of Darius in Persia. And there is still one higher testimony than any which I have yet referred to, to the same fact, viz., that of one who was a ruler both under the empire of Babylon and the empire of Persia, who tells us, that he "prospered in the reign of Darius, and in the reign of Cyrus the Persian,"³ from whom we collect, that the third year of Cyrus over the empire of Babylon, was subsequent to the accession of Darius, called the Median, "the prince of the kingdom of Persia."⁴ Berosus also states, according to Clemens Alexandrinus,⁵ that in "the twelfth (eleventh) year of Zedekiah, king of Judah,

¹ Dissertationes Cyprianicae. Appendix.

² Aucher's Enseb. p. 30.

³ Daniel, vi. 28. ⁴ Ibid. x. 13, and xi. 1.

⁵ Clem. Alex., Strom. i.

Nebuchodonosor made war upon the Jews and Phœnicians, seventy years before the reign of the Persians." These seventy years from thence can only end in the reign of Darius Hystaspes.

Such, then, were the chronological difficulties in reconciling Babylonian and Persian history, and such the various modes of solving them, in the days of the compilers of the various copies of the Babylonian Canon. The same difficulties yet remain unsolved, and are further aggravated by the precision with which modern astronomers have determined the actual date of the eclipse, which, according to Herodotus, terminated the Lydo-Median war, and which fixes, therefore, the time of the other events which are connected with that event. The mode of escape from the dilemma now usually adopted, and which indeed has received the sanction of Niebuhr, is, to set aside the authority of Herodotus at this point, and to declare that he has erred in connecting the eclipse of B.C. 585 with the war referred to, though this is one of the most distinct and circumstantial pieces of history contained in his work. The effect of this mode of dealing with the subject is, indeed, to preserve the true date of the reign of Cambyses; but at how great a sacrifice! For a chronological arrangement is thus produced confessedly at variance both with Herodotus and Ctesias, which treats the work of Xenophon as romance, and which is in direct contradiction of the contemporary history of the book of Daniel.

The enigma, as yet, remains unsolved. I will now briefly refer to a solution of it, which appears to me capable of clearing up the difficulties, and upon which I propose to myself the honour of addressing this Society on some future occasion.

It is obvious that Herodotus has fallen into error somewhere in his chronology. Considering, however, how careful and scrupulous he is in collecting and recording facts, it is too much to charge him with so circumstantial an error as that imputed to him, concerning the sudden darkness which led to the termination of the war between Cyaxares and Alyattes. His error is one which any foreigner might fall into, even in the present day. He has incidentally mentioned two princes bearing the title Cambyses, each of them son of Cyrus; and he begins his third book with the history of Cambyses, son of Cyrus and Casandane, with every appearance of having some historical document before him concerning that king. Now, my hypothesis is, that the Cambyses, son of Cyrus, here described is the father, not the son, of the Cyrus who conquered Babylon. He began to reign in the year B.C. 529, as collected from the Canon. Babylon was not taken, however, before this Cambyses came to the throne, but during his reign in Persia, which fact is attested to by Xenophon. Cyrus also, the father of this Cambyses, who conquered Cræsus, was not the grandson of Asty-

ages, but his son-in-law, as Ctesias declares, in direct contradiction of Herodotus ; and though he may have carried on war against the king of Babylon, as Justin and Herodotus relate, the capture of the city of Babylon, which really was effected by the grandson of Astyages, is not attributed to this Cyrus, either by Justin or Ctesias. On this hypothesis, the several histories of Cyrus, both sacred and profane, may be reconciled, and also brought into harmony with astronomical data. I will not dwell farther upon this hypothesis, but now proceed to show how, if we accept the solar eclipse of B.C. 689 as connected with the third year of the reign of Sennacherib, and the solar eclipse of B.C. 585 as connected with events which preceded the fall of Nineveh, we shall be compelled to lower the position of the five last kings of Babylon mentioned by Berosus, thus :—

Nabuchodonosor	..	43 years, beginning in B.C.	578
Ilverodam	..	2	535
Neriglissaar	..	4	533
Laborosoarchod	..	0 9 months ..	529
Nabonidus	..	17	528

Though the lunar eclipses, upon which the Canon of Ptolemy is founded, have always been capable of verification by astronomers without difficulty, it is only recently that the means of calculating ancient solar eclipses has become sufficiently accurate to admit of their application to chronology with any degree of certainty. For the first time, therefore, the Canon of Ptolemy is capable of being submitted to this stringent test of its accuracy.

I propose to apply the test, by first ascertaining the exact number of years which elapsed between the third year of Sennacherib, and the first year of Nebuchadnezzar, according to history ; and then, by counting the number of years so ascertained from the eclipse of B.C. 689, to determine the true position of Nebuchadnezzar in the Babylonian Canon.

Fortunately, we have three independent modes of determining the exact interval between these reigns.

1st, Demetrius, in the reign of Ptolemy Philopator, makes the interval 110 years.¹

2nd, The Chaldean historians, according to Eusebius, counted eighty-eight years from Sennacherib to Nebuchodonosor ; and to produce any consistency in the passage of Eusebius referred to, these eighty-eight years must be counted from the end of the reign of Sennacherib. Adding, therefore, the twenty-two last years of Sennacherib, to the eighty-eight, we obtain the same number, 110 years.

¹ See Note, p. 422.

3rd, Manetho, in the reign of Philadelphus, has given us the length of the period from the first year of Tarcos, or Tirhakah, in Egypt, to the death of Necho II, thus :—

Tarcos	18
Stephinales ..	7
Nechepsos ..	6
Necho I. ..	8
Psammetichus ..	54
Necho II. ..	16 ¹

109

Now, the last year of Necho II. was concurrent with the first year of Nebuchadnezzar, and the first year of Tarcos was soon after the third of Sennacherib. For we are told that Pharaoh Necho was to be given "into the hands of those that *sought his life*, and into the hand of Nebuchadnezzar;" ² and also that he was smitten at Carchemish, by Nebuchadnezzar, in the first year of the latter king's reign.³ We know also from Berosus that he was in Egypt when his father died, and when he was recalled to Babylon to take the throne. He must have followed Necho, therefore, into Egypt, after his defeat at Carchemish, and then have slain him.

Sethos was on the throne of Egypt when Tirhakah came out of Ethiopia to assist him, in the third year of Sennacherib, and it is reasonable to assume that soon after that period Sethos was superseded by Tirhakah. So that we obtain about the same interval from Egyptian sources, that we have obtained from Chaldean and Jewish authority, viz., 110 years.

Now, 110 years, counted from the end of the year B.C. 689, brings us to the year B.C. 578 for the first year of Nebuchadnezzar, which is wrongly placed therefore in the Canon, in B.C. 604.

This triple testimony of Demetrius, Chaldean, and Egyptian authorities, to the length of interval between the third of Sennacherib and first of Nebuchadnezzar, is very strong; and if either the beginning of the period in B.C. 689, or the ending in B.C. 578, has been sufficiently determined by reference to astronomical data, the result we have arrived at must be correct. If both these dates, however, may be considered as established on the unerring basis of two solar eclipses, the conclusion is irresistible, and the Canon of Ptolemy must be rectified, by lowering the date of the five last kings of Babylon as proposed.


¹ Corrected from 6 to 16.

² Jerem. xl. vi. 25, 26.

³ Compare xlv. 2, with xxv. 1.

ADDENDA TO THE PAPER AT THE BEGINNING OF THE VOLUME, ON THE SCYTHIC VERSION OF THE BEHISTUN INSCRIPTION.

IN page 99 of this volume, in the remarks upon a passage recording the death of Bardes, the brother of Cambyses, I stated that we have at the beginning of line 23 only a few characters as the representatives of nearly two lines in the Persian original. There was obviously something wanting, and the word *yufri*, left incomplete at the end of line 22, ought to have aided in suggesting the omission of a line in my copy; but I had confidence in the pantograph, and made no further investigation, taking it for granted that all was right. I have since been informed, however, by Colonel Rawlinson, who made his copy from the rock itself, that I have left out a line; and a reference to the cast shows that this is the case. The omission arose from the crumpled state of the paper impression, which had been folded upon that very line, so as to obliterate every trace of a character, coupled with the fact that the instrument was shifted, and a new commencement made upon the same spot. The line is much injured, and these are the only characters preserved by Colonel Rawlinson:—

⌞⌞	>		⌞			⌞	>	>	>
vi	yu		ta		ko	vas	mar	ri	s
	>	⌞⌞	⌞	⌞	>	>	>	>	
kan	pu	chi	ya	yu	far	ri			

This is hardly more than half a line, but the equivalents for the words mother and brother are unknown, and it cannot be completed. From *yufri*, at the end of line 22, down to *marris* in the omitted line, the clause must be "He held the kingdom here before me." *Kan-puchiya yufri* must be the commencement of the sentence "Cambyses had a brother named Bardes, of the same father and mother with Cambyses." The hardly visible ⌞|⌞ probably represents "mother." See page 161. In line 23 (which should have been the 24th), the word preceding Cambyses, of which the last letter ⌞| is the only one quite positive, may be | >|| ⌞| "afterwards."

An error of reading has been communicated by my friend Westergaard. The initial of the name Artabardes, the only character visible, is given correctly on the plate >||| and properly transcribed; but is afterwards written >||| by inadvertence. I notice this

INDEX.

- Abu Shahrein, Notes on, by J. E. Taylor, Esq., 404
 Alphabet, Scythian, 47
 Anabasis of Xenophon, passage of the Zab, 309
 Arched vaults at Muqeyer, 278
 Area of Nineveh, 324
 Artæi, native name of the people of Persia, 205
 Asshur, the primeval capital of Assyria, 216
 Assyria, maps of, by Capt. Jones, 297
 Assyrian Chronology, by J. W. Bosanquet, Esq., 277
 Avars, possibly Amardi, 4

 Babylonia, Early History of, 215
 Berossus, best authority on early Babylonian history, 216
 Bosanquet, J. W., on Assyrian Chronology, 277
 ————— Corrections of the Canon of Ptolemy, 416

 Calah, or Nimrud, Description of, 335
 Coffins found at Muqeyer, 270

 Dial of Ahaz, on the, 277

 German restoration of Berossus, 217

 Hincks, Rev. Dr., on the successor of Sennacherib, 402

 Jones, Captain, on the Topography of Nineveh, 297

 Kalah, founded about B.C. 1000, 216
 Kalevala, Finnish poem of, 50
 Koiyunjik, the Acropolis of Nineveh, 325

 Larissa of the Anabasis, the modern Nimrud, 336

 Muqeyer, on the Ruins of, by J. E. Taylor, Esq., 260, 414

 Namri, or Babylonian Scythæ, ethnic relations of, 230
 Narrative of the Survey of Nineveh, 352
 Nebbi Yunus, tumulus of, 326
 Negoub Tunnel, 311
 Nimrûd, or Calah, description of, 335
 ————— the Larissa of Xenophon, 336
 Nineveh, description of, 314
 Norris, E., on the Scythic Cuneiform Inscriptions, 1, 431
 Numbers, Assyrian, phonetic reading of, 219

 Ptolemy's Canon, corrections of, by J. W. Bosanquet, Esq., 416
 Pyramid at Nimrud, 348

 Rawlinson, Colonel, on the Early History of Babylonia, 215
 ————— on the Orthography of some Royal Assyrian names, 398

 Scythic Version of the Behistun Inscription, Memoir on the, 1; Addenda to the Memoir, 431
 Scythic dominion in Mesopotamia, 227
 ————— language allied to Finnish, 49-50
 Selfamiyeh, near Nimrud, notice of, 351
 Semitic Empire of Babylonia, 221
 Sossus, phonetic reading of, 217
 Syllabarium originally Scythic, 52

 Tables of Astronomical and Traverse Operations connected with Survey of Nineveh, 375
 Tel el Lahm, Notes on, by J. E. Taylor, Esq., 412
 Taylor, J. E., on the Ruins of Muqeyer, 260
 ————— Notes on Abu Shahrein and Tel el Lahm, 404

- Tomb Mound at Muqeyer, 268
Topography of Nineveh, by Capt. Felix Jones, 297
Tunnel of Negoub, 311

Ugrian nearly allied to Scythic, 2

Wall of Nineveh, 321

Winged Deity, sculptured at Nimrod, 338

Zab, River, passed by the Greeks, 309
Zoroastrian faith, primitive condition of, 245
Zyrianian Inscription in Vologda, 50

ROYAL ASIATIC SOCIETY.

PROCEEDINGS

OF THE

THIRTIETH ANNIVERSARY MEETING OF THE SOCIETY,

Held on the 21st May, 1853,

PROFESSOR H. H. WILSON,

DIRECTOR,

IN THE CHAIR.

THE FOLLOWING REPORT OF THE COUNCIL

WAS READ BY R. CLARKE, ESQ., HONORARY SECRETARY :—

THE Council have the satisfaction of commencing their Report on the transactions of the past year, with stating that the rule which relieves new members from the payment of an admission fee, and the substitution of evening lectures for six of the ordinary morning meetings, continue to influence favorably the admission of new members, the number of whom, in the past twelve months, was 32, consisting of 24 resident, and eight non-resident members.* Two members only have retired,† whereas the average, during the preceding ten years, gives an annual decrease of six by retirement. Three Members‡ have been

* Charles Alison, Esq.; John Henry Astell, Esq., M.P.; Councillor A. Auer; Rev. Dr. J. Arnold; Alexander Burn, Esq.; Col. M. Bagnold; Rev. John Baker, M.A.; George Campbell, Esq.; R. W. Crawford, Esq.; John Capper, Esq.; Rev. Jonathan Cape; William Dent, Esq.; Rev. Percival Frost; Professor Goldstickler; Thomas Holroyd, Esq.; Major H. Huddleston; Arthur B. Hill, Esq.; Thomas W. Henderson, Esq.; Thomas Henry, Esq.; Rev. W. Keane, M.A.; Dr. R. G. Latham; Lieut. E. G. Langmore; Kenneth R. H. Mackenzie, Esq.; William F. Parker, Esq.; Sir Thomas Erskine Perry; S. E. Rolland, Esq.; Col. Hugh Rose; Sir Henry Roper; James H. Skene, Esq.; Hon. F. Walpole, R.N.; William Parker Hammond, Esq.; Robert Wilkinson, Esq.

† Col. Thomas Wood; John Lawford, Esq.

‡ Major T. S. Burt; Capt. Granville Lock, R.N.; Thomas Bacon, Esq.

struck off under the Rules which direct that mode of removing the names of persons, who, after diligent inquiry and long delay, cannot be heard of, and have not paid their Annual Subscriptions. The number of deaths has been, of Resident and Non-Resident Members, 14 ;* and of Foreign and Corresponding Members, 3. The actual net increase in the number of Members of the Society is 10.

This Society, which has participated in the national feeling at the irreparable loss sustained by the death of our great commander and wise counsellor, laments, in that mournful event, the removal from its list of Members of the illustrious name of the DUKE OF WELLINGTON, one of its earliest associates. The praise of his mighty deeds belongs to other records than those of a literary Society, and is chronicled in history, and in the hearts of a grateful nation. It will not, however, be forgotten, that the first dawn of his victorious career opened on the plains of India ; and that the genius there displayed gave promise of future greatness, which the glorious events of his protracted life more than realised.

In the number of those whom the Society has lost by death, the names of Erskine, Atkinson, Lee, and Burnouf stand conspicuous, and the following brief notice of their labours will not be unacceptable to the meeting.

Mr. ERSKINE was born in Edinburgh, on the 8th of November, 1773; and passed the first portion of his life, from birth to manhood, in that city, receiving his education from the High School and the University, in which he acquired scholarship of the highest order, and knowledge of the most varied and valuable description, especially in the departments of law, political and social economy, history and antiquities. These pursuits he continued to cultivate with unabated ardour, during the leisure afforded him by his professional attendance on the office of a Writer to the Signet, being destined for the legal profession. The latter years of his academic, and the earlier ones of his professional career, comprehend a period, remarkable in the annals of the University of Edinburgh, for students, who afterwards became eminent as scholars, poets, critics, lawyers, and statesmen, including the names of Grahame, Campbell, Brougham, Horner, Leyden, Brown, and others, with whom Mr. Erskine associated at this time on the most intimate

* James Atkinson, Esq.; John Brady, Esq.; Lieut.-Col. J. Caulfeild, C.B., M.P.; Major-General T. Colby, F.R.S.; William Erskine, Esq.; James Ewing, Esq.; Henry Hervey, Esq., F.R.S.; Rev. Dr. Samuel Lee; Thomas Pell Platt, Esq.; G. R. Porter, Esq.; James Ruddall Todd, Esq.; John Trotter, Esq.; Francis Warden, Esq.; the Duke of Wellington.

and friendly footing, and with whom he maintained a cordial intercourse through many succeeding years.

After an interval of probationary study, Mr. Erskine engaged in professional practice; but finding it not altogether congenial to his tastes, he was disposed to direct his attention to other pursuits, when he was invited by Sir James Mackintosh, who had been appointed Recorder of Bombay, to accompany him to India, as his secretary. With this invitation he gladly complied; and left England for Bombay, in the beginning of 1804. Of the satisfaction which the appointment afforded to Sir James, and the estimation in which he held his secretary, Sir James has left his recorded testimony. "It was my good fortune," he observes, "to bring out with me a young Scotch gentleman, who is one of the most amiable, ingenious, and accurately informed men in the world." A connexion between individuals of such a stamp could not fail to ripen speedily into friendship; and it was subsequently still more closely cemented, Mr. Erskine becoming Sir James's son-in-law in 1809.

Thus recommended by his own merits, and by the influence of Sir James, an opportunity was soon found of placing him in an independent position, in which his abilities might have full exercise; and he was appointed one of the magistrates of Bombay. In 1820 he was nominated by Sir W. D. Evans, Master in Equity. Of the manner in which he discharged these public duties, we have the sentiments of the most competent judges, in the address presented to him on his departure in 1823, by the great body of the European Society, in which they state: "in public life we have observed you perform the arduous duties of various important situations with the most conciliatory address, the greatest ability, the strictest integrity, and the most benevolent, but impartial justice." Similar testimony was borne, on the same occasion, to the merits of Mr. Erskine's private character, as distinguished by the most engaging urbanity, the correctest feelings of a gentleman, the nicest principles of honour, and the loftiest sentiments of disinterestedness,—a character which the whole tenor of his subsequent life continued to deserve.

Mr. Erskine quitted India, with greatly impaired health, in 1823; and returned home by the way of China. After a residence of three years in Edinburgh, he repaired to Paris, where he lived for a similar term. He then returned to Scotland, and continued to reside there the rest of his life, with an interval of four years, from 1844 to 1848, passed at Bonn. He died in Edinburgh on the 20th May, 1852, in the 79th year of his age.

The novelty and interest of the objects around him on his arrival in India, naturally awakened, in a mind constituted like that of Mr.

Erskine, an eager desire to be qualified accurately to understand their history and character. For this purpose he engaged zealously in the cultivation of Oriental literature, particularly Persian, in which he very soon ranked with the most distinguished students, and to which he devoted the greater portion of his future leisure, with a success proportioned to his assiduity and talents. The same interest which he took personally in Oriental study, extended itself to the promotion of its cultivation by others; and in the year of his arrival in Bombay, he actively seconded the arrangements instituted by Sir James Mackintosh for the formation of the Literary Society of Bombay. Mr. Erskine, in the first instance, consented to undertake the office of Secretary; in which capacity he contributed most effectively to the credit and prosperity of the society. He subsequently held the station of Vice-President for some years before he quitted India, on which occasion the Society acknowledged his unremitting and judicious exertions as Secretary; his valuable contributions to its Transactions; and the readiness with which that assistance and advice, which his intimate acquaintance with Classical, Modern, and Oriental literature, his sound judgment, and correct and cultivated taste had enabled him to give to others, was always afforded.

The contributions of Mr. Erskine to the early volumes of the Transactions of the Literary Society of Bombay, are amongst the most valuable of their contents: they are five in number. In the first, "Observations on two Sepulchral Urns found at Bushir," the author showed from early Greek writers, that the ancient Persians did not abandon their dead on their sepulchral towers, but interred their bones, after they had been blanched and purified by the exposure of the corpses to the air. The next paper, "An Account of the Cave Temples of Elephanta," is remarkable for its refined taste, as well as its extensive and accurate knowledge of Indian antiquities and mythology. In his next paper, "On the Sacred Books and Religion of the Parsis," he elucidated the ancient history of the people, and their literature, from original as well as classical authority, and furnished authentic accounts of the existing tenets of the Parsis. Mr. Erskine, in this paper, was inclined to adopt the opinion of Sir William Jones, and Colonel Vans Kennedy, of the Indian origin of the Zend language; but the philological labours of later writers induced him to change his views in this respect, as we learn from the Rev. Dr. Wilson's memorial of his literary researches, read to the Bombay Branch of the Royal Asiatic Society. At the same time, as Dr. Wilson remarks, one of his most important theses on the Zend language—that it is not the parent of modern Persian,—may now be easily established, the Zend, in its two dialects, having been the language of Sogdia and Bactria, the literary fragments

of which are older than the time of the Achæmenides, and different from, although allied to, the language of the Inscriptions at Bisitun.

In his fourth dissertation, which displays critical acumen of the highest order, and extensive conversancy with Persian literature, Mr. Erskine disposes, beyond further controversy, of the authenticity and value of the two celebrated fabrications,—the *Desatir* and *Dabistan*.

Mr. Erskine's last communication was "Observations on the Remains of the Buddhists in India," in which all that was known at the time was collected in a clear and elegant manner; and the questions of chief interest were discussed with that comprehensiveness of inquiry, and deliberate exactness, which were especially characteristic of all his compositions.

Besides these contributions to the pages of the "Transactions," Mr. Erskine devoted a portion of his time to completing the translation of the "Autobiographical Memoirs of the Emperor Baber," from the Jaghatai Turki, in which they were originally written. The translation was commenced by Dr. Leyden, but he had made but little progress in it at the time of his death in 1811; and the history of India, and of mankind, would have wanted one of its most interesting and important illustrations, had the MS. remained in the state in which it had been left. A regard for the fair fame of his early friend, as well as a conviction of the intrinsic value of the work, induced Mr. Erskine to acquire the language of the original, and to complete the translation, which was finished and sent home in 1817, but its publication was delayed until 1826, by which an opportunity was given to Mr. Erskine of revising his work, and conducting it himself through the press. The translation was preceded by a copious and learned dissertation on the history and geography of the countries in which the descendants of Jangex Khan and Timur flourished; and by various notes and supplementary additions of the greatest historical and topographical value, presenting a body of information almost entirely new to European research. The publication was reviewed most favorably in the "Edinburgh Review" by the late Lord Jeffrey, and the review is republished in his Essays. A more competent, though not a more eloquent critic, was, however, found in the celebrated Sylvestre De Sacy, to whose great Oriental knowledge the subject was familiar, and who has made the life of Baber the subject of two highly commendatory and analytical memoirs in the "Journal des Savans," for May and June, 1829.

After the publication of the Memoirs, Mr. Erskine confined his contributions to Oriental literature to a few articles in the "Edinburgh Review," chiefly in connexion with Indian travels, and the latter portion of the life of Lord Clive, which Sir John Malcolm's death had left unfinished. He was not, however, less diligently occupied; and although much interrupted by applications for literary information and assistance,

—constituting a serious demand upon his time, but which he was always ready to afford, he pursued the courses of investigations which the *Memoirs of Baber* had recommended,—the history of the Uzbek princes, and particularly that of the sovereigns of Hindustan descended from Timur. On the former subject, Mr. Erskine's son possesses some important documents, prepared by his father. On the latter, there have been left the reigns of Baber, and of his son, Humayun, in a state fit for publication ; all which, therefore, it is to be hoped, will be printed, as forming an invaluable addition to our materials for the authentic illustration of the history of India, and for an accurate appreciation of the foundations of the system of Indian administration which have served as the ground-work of our own.

Mr. JAMES ATKINSON was born in the county of Durham, on the 9th of March, 1780. After passing through the usual course of preparatory training, he entered upon the study of the medical profession, which he pursued, first in Edinburgh, and finally in London ; cultivating, at the same time, those natural talents for literature and art which distinguished him throughout the whole of his subsequent career. An early proof of his literary propensities was afforded by his publication of a poetical romance, entitled "*Rodolpho*," which was printed at Edinburgh in 1801, and was favorably noticed by contemporary criticism. His first introduction to India was as a medical officer on board an Indiaman ; but in 1806 he was appointed an assistant-surgeon on the Bengal Establishment. Shortly after his arrival in India, he was placed in medical charge of the civil station of Backergunj, where he remained till the beginning of 1813. As his professional duties left him sufficient leisure, he devoted it to the successful study of the Oriental languages, especially of Persian. His taste for the fine arts also received a fresh impetus from his intimacy with Sir Charles Doyley, who was collector of Dacca from 1809 to 1812, and who is well known as an amateur artist of extraordinary talent, and with Mr. Chinnery, who was, during part of the time, resident also at Dacca, and whose high professional abilities are acknowledged in this country by his brethren. The vicinity of Backergunj to Dacca admitted of easy intercourse ; and the similarity of tastes, and, in some respects, of humours, begot a friendship between these three gentlemen which lasted during the rest of their lives.

The literary and artistic merits of Mr. Atkinson having attracted the favorable notice of the Governor-General, Lord Minto, whose sympathies had been early enlisted, as the friend of Johnson, Goldsmith, and Burke, in intellectual pursuits, and who was ever ready to give them friendly encouragement, his lordship availed himself of a favorable opportunity of bringing Mr. Atkinson to Calcutta, by appointing him assistant to the

Assay Master in the Calcutta Mint, in which office he remained till 1828, with a brief interval in 1818, during which he officiated as Assistant Persian Professor in the College of Fort William; and with the intermission of a visit to England in 1826-7. This appointment he held, in conjunction with that of Superintendent of the "Government Gazette," to which he was appointed early in 1817; and although the official connection of the Government with the press was discontinued in 1823, yet the success with which it had been conducted under Mr. Atkinson's superintendence induced the proprietors, the Governors of the Orphan School, to conclude an arrangement with him, by which, for a stipulated annual payment of considerable amount, the "Gazette" and the "Press" were left to his sole management. They continued to prosper whilst he remained in charge, the "Gazette" being made the vehicle of much new and valuable topographical and statistical information with respect to countries on the frontiers of India previously little known, which rendered it an authority even with continental geographers.

In 1828, Mr. Atkinson paid a second visit to England, and took that opportunity of making himself acquainted with the progress of surgical and medical science in the schools of both London and Paris. On his return to India in 1833, he resumed his professional career, being attached as surgeon to the 55th Regiment, N.I.

In 1838, he was appointed Superintending Surgeon of the Army of the Indus, and accompanied it on its march from Shikarpore to Kabul. Shortly after the surrender of Dost Mahommed he was relieved, in the course of duty, of the medical charge of the force, and returned to Bengal in 1841,—thus fortunately escaping the fate which was reserved for so many of his brave companions in arms. In 1845 he was appointed a member of the Medical Board, from which he retired in 1847, after a service of forty-two years. He died of an attack of apoplexy, on the 7th of August, 1852.

As soon as he was in a situation to bring his literary pursuits to maturity, Mr. Atkinson entered zealously upon the task; and in little more than a year after his residence in Calcutta, published his poetical version of an extensive and interesting episode of the "Shah Namah," the adventures of Sohrab, the son of Rustam, illustrating the Persian author by analogous passages from the standard poets of the West, which exhibited a most extensive familiarity with the best writers, not only in English, but in Italian and the classical languages,—a range of scholarship the more remarkable, as it must have been, in a great measure, self-acquired. The Persian text was also edited by him and printed. His next publication was a poetical tale called the "Aubid," عابد which was printed in 1819, and about the same time he edited the popular Persian story of "Hatim Taee," for the use of the

junior students of the college. This was followed in 1823 by the translation of "*Ricciarda*," a tragedy, by Ugo Foscolo. In the same year appeared the first volume of a work, partly original, partly compiled by Mr. Atkinson, in conjunction with Mr. Wilson, the "*Calcutta Annual Register*," intended to furnish a contemporaneous record of passing events in our Indian Empire. This volume embraced the occurrences of 1821, and a second volume those of 1822; but there the work ceased for want of sufficient encouragement. In the miscellaneous portion of the first volume is a poetical monody, by Mr. Atkinson, on the death of the Earl of Minto, an affectionate tribute to the memory of his first patron, written in 1814. The second contains copious extracts from a volume of poems published by him in 1824, containing, "*The City of Palaces*," the story of "*Peer Mohammed*," and of "*Bowna Khan*," written in the same metre, and in that mixed strain of humour, sarcasm, and seriousness which Lord Byron's "*Beppo*" had recently made popular. In the same year, a political squib, entitled "*Prospectus of the Calcutta Liberal*," was published by Mr. Atkinson, who, although far from being an ardent politician, was not disposed to attach much value to many of the schemes then afloat for the improvement of society in India.

On his first visit to England, Mr. Atkinson completed and published his translation of the *Secchia Rapita* of Alessandro Tassoni; and on his second, he became an industrious contributor to the publications of the Oriental Translation Fund. His most considerable work was an abridged version and epitome of the great poem of Firdusi, the "*Shah Namah*;" the narrative, in its level passages being translated in prose, and many, rising into poetry and passion, in blank verse, or occasionally in rhyme. At the end the episode of Sohrab is reprinted. The great length, and in many respects, tediousness of the entire "*Shah Namah*," renders it little likely that a translation of the whole poem would ever be acceptable to an English public; and from this abridgment they may be able to appreciate with some degree of accuracy, the merits of the composition. The translation was honoured, deservedly, by the gold medal of the Translation Fund.

Another work, published about the same time, was a translation of a Persian treatise, on the customs and manners of the women of Persia, an exceedingly amusing little book, shewing, as the translator remarks, the actual state of Persian life behind the curtain. The publication is embellished by an imaginary portrait of a Persian lady, drawn on stone by the translator; and it was at this time that the Society was indebted to Mr. Atkinson for the portrait of the Earl of Munster, which preserves to us an excellent likeness of one whose memory the Society must ever treasure as that of one of its most earnest and zealous supporters and

friends. During this visit also Mr. Atkinson found other opportunities of cultivating his talents as a painter, and executed copies of European paintings of celebrity, especially of two of Titian's female portraits, which are highly finished specimens of art.

On his return to India, Mr. Atkinson continued his labours in Persian literature, and contributed to the Translation Fund a poetical version of the celebrated poem of Nizami, "On the loves of Laili and Majnun," mystified as the reciprocal affection of body and soul. This is perhaps the most carefully finished of Mr. Atkinson's translations, and conveys a pleasing, and sufficiently faithful representation of the original.

The Afghan war called Mr. Atkinson away from his tranquil studies, but only to enlarge his opportunities of observation, and furnish additional evidence of his talents in both the departments he cultivated. In 1842 was published in London his account of the expedition into Afghanistan, with notes and sketches descriptive of the country, contained in a personal narrative during the campaign, to the surrender of Dost Mahommed Khan, and of the author's return through the Punjab to Ferozpur. The work is full of interesting details, including a translation of a short autobiography of the unfortunate Shah Shooja. At the same time appeared a series of lithographed drawings, entitled "Sketches in Afghanistan," illustrating the features of the country through which the army marched, various interesting incidents of the campaign, and the aspect of the capital, Kabul. Nothing can be more strikingly characteristic of the countries and of the people with whom we were, now for the first time brought acquainted, and the difficulties and dangers to which the troops were exposed will be better conceived from a cursory inspection of these graphic records, than from volumes of description.

These short notices of Mr. Atkinson's literary and artistic labours are sufficient to establish his claim to be considered as one of those who have most successfully contributed to promote the objects of this Society, by giving to Oriental literature, and to the history of India, popular and attractive as well as authentic and instructive forms.

Among the distinguished Orientalists whose names have graced the list of Members of this Society we have numbered the Rev. Dr. Samuel Lee, who for nearly thirty years was Regius Professor of Hebrew in the University of Cambridge. He resigned that office in 1848, and died in December, 1852, in the sixty-ninth year of his age. The literary career of Dr. Lee was remarkable, as it was entered upon without any of the ordinary advantages of instruction from masters, in or out of school, and during the laborious occupation of apprenticeship to the trade of a carpenter. In the two last years of that hard life, he began

Latin ; and having methodically mastered the best grammar he could obtain, read the Latin Bible, and portions of the works of the best authors, in verse and prose.

As soon as he was released from his apprenticeship, he adopted, with great success, a similar course for the acquirement of Greek, as he had pursued in Latin. His ardent love for the study of languages next led him to take up the Hebrew, which he pursued amidst privations, discouragements, and frequent suffering from inflammation of the eyes. His admirable perseverance surmounted all obstacles ; and he added to his attainments in Hebrew, the acquirement of the cognate Syriac and Chaldee.

At the age of 25, he married ; and while he was purposing to occupy himself in some pursuit which would give better promise of support than he could then anticipate from the study of languages in a remote country town, and in his humble condition in life, a fire consumed all the valuables he possessed, and he was cast on the world, apparently friendless and penniless.

His literary labours, however, had not been unobserved, and his meritorious industry was beginning to find some reward. Archdeacon Corbett, of Shrewsbury, sent for Lee, and after an interview, which enabled him to ascertain and appreciate the extent of Lee's attainments, obtained for him the situation of Master of the Blue Coat School of Shrewsbury. Mr. Corbett soon after introduced Mr. Lee to Dr. Jonathan Scott, once the secretary to Warren Hastings, and at that time Oriental Professor at the Royal Military College, and at the Military Seminary of the East India Company. This excellent Oriental scholar encouraged and aided Lee in the acquirement of Arabic, Persian, and Hindustani, which he taught him to pronounce with Eastern euphony.

In 1813, being then 30 years of age, Lee entered Queen's College, Cambridge, where his talents and industry had full scope for development, and where he gradually rose to higher eminence in honors and reputation. In 1819 he was elected Professor of Arabic, and received the degree of M.A. by Royal mandate ; and in 1831, he was chosen to fill the Chair of Regius Professor of Hebrew.

Three years after his matriculation, he published his Syriac New Testament, for which the University of Halle in Saxony conferred upon him the degree of D.D. He was raised to the same degree in his own University in 1833.

His Hebrew grammar, published in 1832, is in high estimation ; and besides his edition of the book of Job, and his Syriac Old Testament, he added to his literary reputation by editing a Syriac version of Eusebius on the Theophania. The original of this treatise was after-

wards edited at the expense of the Society for the Publication of Oriental texts.

Several Scriptural and devotional works put forth by him, in Coptic, Persian, Hindustani and Arabic, have rendered important aid to the cause of true religion, and to its extension and revival in Eastern lands; while many theological and controversial publications, in our own languages, bear testimony to his zeal and ability in those departments of sacred literature.

Dr. Lee's connexion with this Society was marked by his undertaking to furnish to the Oriental Translation Fund a translation from the Arabic of the travels of Ibn Batuta,—a work which he executed with fidelity and taste, and for which he received the well-earned tribute of the gold medal instituted by His Majesty, King George the Fourth.

Monsieur EUGÈNE BURNOUF was born at Paris in 1801. His father was known to classical scholars as the author of a very useful and compendious Greek grammar, which has been much used in the schools of France. Eugène Burnouf was a pupil of Chezy, one of the earliest cultivators of Sanscrit literature on the continent, and the first who gave public lessons in that language in Europe. His progress under Chezy was rapid; and as early as the year 1824, he was able to give instruction in the Sanscrit language. In 1826, he published in conjunction with Professor Lassen, of Bonn, the well-known "*Essai sur le Pali*," in which they first communicated to European scholars the knowledge of a language immediately derived from the Sanscrit, and the principal vehicle by which the doctrines of Buddha are disseminated in Ceylon, and the peninsula beyond the Ganges. In the Normal School of Paris, a Professorship of General and Comparative Grammar was founded in 1829, to which M. Burnouf was appointed, and in which he continued to labour until 1833: on his retirement, the Chair was abolished. His lectures during this period were imperfectly written down by his hearers, and lithographed copies are much sought after by pupils at the college: but M. B. St. Hilaire informs us that his own MS. of the first two years of his course exists among the papers left by him. In 1831 Burnouf gained the prize founded by Volney for the transcription of the Asiatic languages in Roman letters, and his treatise was crowned by the Institute. Two years after this, Burnouf published the work by which he is, perhaps, best known to Oriental scholars—his "*Commentary on the Yaçna*," in which, through the medium of the Sanscrit translation of the Yaçna, he corrected many of the errors of Anquetil du Perron, and first gave accurate and authentic versions of the Zend text, and ample and important illustrations of the

literature, language, and history of the Parsis, by enabling European scholars to prosecute the cultivation of this department of learning, and bring it to its present state of development. Nor did his contributions to the cultivation of Zend here cease ; his labours were followed up in his "*Etudes sur la langue Zende*," a series of papers which were published from 1840 to 1850, in the "*Journal Asiatique*," and afterwards collected in a separate volume. It is also understood that he has left MS. notes on the same subject sufficient for several volumes, which it would be highly acceptable to every student in the language to see in print. It is an interesting testimony to the confidence felt in M. Burnouf's interpretations of the text, that in the controversy between the Parsis and the Protestant Missionaries at Bombay, both parties adopted the readings furnished by him in his Commentary. The impulse given to the study of the Zend language by the labours of Burnouf was extensively felt, and there are now several editions of the Zend Avesta in existence, two of which were published in Bombay, and the rest in Europe. Others are in course of publication, one by Professor Westergaard of Copenhagen ; another by Professor Lassen ; and a third by Dr. Spiegel. We are not aware that the edition commenced at Hamburg, by Olahausen, has since been proceeded with. A very useful edition for the general philologist was published by Brockhaus, in 1850, in the Roman character, with a copious index, and a small vocabulary.

The knowledge of the ancient language of Persia, communicated in the "*Commentaire sur le Yaçna*," has been of the greatest service in the decipherment of the Cuneiform Inscriptions ; and it is not, perhaps, too much to say that, without it, the labours of Rawlinson, of Lassen, of Holtzmann, and of others who have been most successful in this difficult task, would have produced less decisive results than those which have followed their investigation.

In his "*Mémoire sur Deux Inscriptions Cunéiformes*," published in Paris, in 1836, M. Burnouf, by the aid of the geographical list contained in the Inscription of Darius at Persepolis, published by Niebuhr, made considerable addition to the alphabet of the language. The *Mémoire* was a great step in advance of all that had gone before ; and from the writer's accurate knowledge of the Zend, he was able to furnish valuable hints for those followers who have made the Cuneiform inscriptions an especial subject of investigation.

M. Burnouf had undertaken to supply the magnificent *Collection Orientale*, published by the French Government, with the text and a translation of the Bhagavat Purana. His death has prevented the completion of his task, which has been interrupted after the publication of three volumes, the careful execution of which renders the want of the remaining volumes still more a subject of regret. The published volumes

are preceded by valuable dissertations, throwing great light upon the work itself, and of the history of the Hindu religion, both of the Vaidic and Pauranic periods.

An introduction to the history of Indian Buddhism was the last work published by M. Burnouf; and that also was interrupted by his death, only one volume having been printed. This work was the result of a most careful and laborious study of the original manuscript authorities, obtained by M. Hodgson in Nepaul, and presented to the Asiatic Society of Paris, containing a complete corpus of Baudhdha literature. Although unfinished, it is the most authentic and authoritative contribution to the study of Buddhism yet published. Unfortunately, it does not appear that there are any materials left by the author for a second volume of this invaluable treatise.

Subsequently to M. Burnouf's decease, an additional contribution to the illustration of the history of Buddhism has been printed. It is a translation of an original Sanscrit work of authority, and is entitled "*Le Lotus de la Bonne Loi*." But besides this translation, the volume, a thick quarto, contains what is still more valuable, a series of dissertations on a variety of topics relating to Buddhism, and especially a most careful and able examination of all that has been published on the inscriptions of the pillars, and the rocks of Delhi, Girnar, Dhauli, and Kapurdigiri. Bringing to the inquiry a knowledge of Pali and of Buddhism, the superiority of which his predecessors would be the first to acknowledge, and having the advantage of their previous speculations, the value of which M. Burnouf with his never-failing candour recognizes, we may look upon his researches as conclusive, and feel satisfied that they have eliminated from these remains of antiquity, all the information they are capable of affording.

Besides this posthumous publication, M. Burnouf has left other works in MS., some of which are nearly ready for printing. The oriental scholar will be very much interested by four large folio volumes, making from two to three thousand pages, containing full indexes to all the Zend words found in the Vendidad Sade, with the variants of the several editions, forming a complete Zend dictionary, which will be an invaluable aid to those who are now laboriously endeavouring to get a knowledge of the Zend without it. Several other works on the Zend language and monuments are also found very nearly complete among Burnouf's MSS. Among the Sanscrit papers left, is an index to Panini, containing all the axioms in alphabetical order. This is quite ready for the printer. A Pali grammar has been also found, nearly complete, and a Pali dictionary; besides a very considerable mass of MSS., some prepared and completed for the press, and others intended to be so.

The list is given in the memoir of M. Barthélemy St. Hilaire, from which chiefly this article is abridged. Although copious, the writer informs us that it does not contain all the valuable remains left by Burnouf.

It may safely be said that no European orientalist has exhibited a greater amount of research, penetration, and industry than M. Burnouf; nor has any one surpassed him in the clearness and precision with which he has recorded the results of his labours. He is entitled, also, to high commendation for characteristic merits which literary men do not always exhibit, a becoming though unnecessary diffidence in the value of his own labours, and a candid and generous appreciation of the labours of other oriental scholars engaged in the same pursuits as those which formed the object and happiness of his existence.

Shortly before his demise, M. Burnouf was nominated Secrétaire Perpétuel de l'Académie des Inscriptions. He had been a member of the Institute of France since 1832.

The researches of the French agents on the site of Khorsabad, where M. Botta made the first discovery of Assyrian palaces, have been continued by M. Place with much success. The first result of his researches among the conical mounds, which appear to indicate the wall of the ancient city, was the discovery of a number of small articles of cornelian, agate, and marble, beautifully polished. There were also many ivory trinkets, which however, with barely an exception, crumbled to dust at the first touch. One of the mounds contained a vast staircase, or succession of terraces, formed of bricks covered with inscriptions, beneath which a species of corridor, of the most perfect masonry, has been laid open, nearly thirty yards in length. This is surrounded by another concentric vault, which is said to have no outlet, but there is some difficulty about the description, which can hardly be understood without a drawing. In another part of the same mound a chamber was found, containing an immense quantity of articles of earthenware, most of which are, unfortunately, broken; but a few jars of small dimensions have been preserved uninjured. The doors which closed this chamber have perished, but the brass hinges and pivots yet remain, as well as the stones in which the pivots turned. Some of the jars contained small copper articles, such as are seen represented on the Assyrian bas-reliefs. Another chamber was the Assyrian wine cellar, containing a number of jars nearly four feet in height, in which a violet coloured sediment is yet seen, that must once have been wine. Two long colonnades of clay, covered with stucco, very closely arranged, with all the pillars yet standing, form a new feature of Assyrian architecture; a

considerable number of the columns have already been traced, and there is every appearance that the series continues much further. M. Place has also continued to lay open the sculptured remains of the édifice ruiné of M. Botta ; but which he gives many plausible reasons for considering rather an edifice in the course of construction. He has sent to Paris several photographic sketches of the sculpture which adorned this edifice, and has painted some of them in the proper colours, with real Assyrian pigments found in digging among the ruins. A black paint is mentioned among others, also vermilion ; and a piece of the most splendid ultra-marine has been picked up, as large as a pigeon's egg.

A sort of Cyclopean road, formed like the celebrated Appian way, of irregular polygons of stone, led to the discovery of a gateway of the city, in perfect preservation, eleven yards in height, by something more than three and a quarter in width. It is built of large bricks, and is constructed in a wall of the same height, covered with a layer of lime, which is believed to be the foundation of a tower, by which the entrance to the city was defended.

It is impossible to read the account of these discoveries,—of such high interest,—without feeling gratified at the good understanding which exists between the French and English authorities in those remote regions. M. Place gracefully admits that he was led to some promising results by the words of our gifted countryman, Colonel Rawlinson, who said to him, when they were walking together over the plain of Khorsabad,—“ Why do you confine yourself to this mound, and the smaller heaps around you, when you have a whole city at your feet ? ” He then repeated to M. Place the translation of an inscription of Sargon, published by Botta :—“ I built a city bearing my name, and in it a palace for myself, and temples for the gods, habitations for the priests, barracks for the soldiers, markets for traders, and houses for my servants.”

We learn from the French accounts that the numerous inscribed cylinders, painted tiles, vessels of clay, metal and glass, trinkets, utensils, and other objects discovered at Khorsabad, will form the nucleus of an Assyrian museum in Paris, which the Government is understood to be making its efforts to extend by continuing the researches so fortunately commenced.

The same French report from which the above paragraph is taken, alludes to the beautiful gold ornaments, cylinders, vases of sculptured basalt, and admirably wrought objects of ivory, discovered by the English at Sherif Khan ; and the letters of Colonel Rawlinson from time to time give evidence of the success of his researches.

Among the objects of interest recently received from Colonel Rawlinson, is the sketch of a bronze lion, which was found at Nebi Yunus, having on it an inscription which was read, "Esarhaddon, King of Kings, Conqueror of Misr and Cush," or Egypt and Ethiopia, curiously confirming the account of Esarhaddon's conquests on the Nile, which Colonel Rawlinson had some time previously transmitted, as extracted from the annals of that monarch.

In another letter, Colonel Rawlinson closed a copy of an inscription in a Semitic alphabet, something between the Sabæan and Chaldee, being one of a numerous collection of inscriptions written upon thin pieces of sheet-lead, closely packed in sepulchral jars, which were found at a place called Abushudhr, near the confluence of the Tigris and Euphrates, about midway between the two streams. The characters are exceedingly minute, but they would probably be decipherable by a good Semitic scholar. About the same time the Colonel transmitted a list of Babylonian months, found on a species of calendar, by the aid of which the succession of events recorded in the great inscription of Bisitûn may be, to some extent, ascertained, and the Persian calendar by which the dates are stated in that monument approximately determined.

The last letter just received from Colonel Rawlinson, informs us that after preparing, with great pains, a full account of his recent labours and discoveries, intended to be read at this annual meeting, he had dispatched it by the mail, which unfortunately had been plundered on its way by the Anezeh Arabs, and the whole of the Foreign Correspondence distributed among those marauders, who are said to be now wearing the unknown Babylonian characters as amulets. The press of public business consequent upon this loss, precluded the possibility of preparing another copy of the papers; but the Colonel has found time to write off a hurried account of some of the prominent points. The most important document which had reached him was the long-expected cylinder from Kileh Shirgat,—a splendid relic, containing 800 lines of beautiful writing, at least 100 years older than the oldest monument hitherto discovered. It was, when found, broken into a hundred fragments, and in some parts, even reduced to powder; but the whole was now carefully joined together, and barely a dozen lines lost. The Colonel says: "It contains the bulletins of the Tiglath Pileser I.—a King who is mentioned in the annals of Assur-akh-pal, as a remote ancestor, who carried his arms far to the northward, and set up tablets at the sources of the Supnat (or, river of Sophene, one of the head streams of the Tigris.) Unfortunately, Tiglath Pileser does not give his genealogy; but the two immediate predecessors of Assur-akh-pal are already known; and Divanuras, the builder of Calah, must also, I think, intervene between

the connected series and this king, as there is no mention on the cylinder either of Calah or Nineveh; the capital of the empire, in fact, at that early period, being Kileh Shirgat itself, which is everywhere on the cylinder named Assur, as it also is on the sitting figure in the museum." Colonel Rawlinson goes on to say :—" I cannot even give a *resumé* of the contents of an inscription of 800 lines : all I can say is that the King warred principally in Armenia, Cappadocia, Pontus, and on the shores of the Euxine; but that he also crossed the Kurdish mountains to the east, and the Euphrates to the west, taking Carchemish of the Hittites, and overrunning Northern Syria and Cilicia : he never attempted to penetrate towards Palestine, the House of Benhadad (Hezion, or Tab-rimmon?) being at that time, probably, all powerful in Cœle Syria. In one paragraph Tiglath Pileser gives a list of some fifty countries which he overran in Asia Minor, but very few of the names survived, even to the period of Assur-akh-pal and Deleboras; of course, therefore, they cannot be identified in classical geography. These glimpses of the political and ethnical state of Western Asia, a very little after the time of Solomon, are, however, full of interest; and as we have at length broken ground in the times anterior to the Assyrian Augustan age,—that, I mean, of the glories of Nineveh and Calah, I do not despair of ascending up to the institution of the monarchy.*

"What I have been particularly struck with in the Tiglath Pileser inscription is, that the writing is better, the language more polished, and the grammatical distinctions more nicely marked than in the later legends. This is nothing more than we might have expected, all language becoming purer as we ascend to the source; but it annihilates all my theories about the modernicity of the Assyrian civilization. Of course, I cannot say positively, that Nineveh was not built in Tiglath Pileser's age; but it is, to say the least of it, very curious, that if built and inhabited, it should never be once named. The capital was, at any

* In a letter received from Col. Rawlinson since the anniversary meeting, that gentleman enclosed a list of the royal Assyrian line, which he carries up to the close of the fourteenth century B.C. In reference to this list, he says, "At the end of the historical part of the Tiglath Pileser cylinder, I found what I had been hunting for, a genealogy of, and numerous allusions to, the ancestors of the king; the result is, that I believe we have at length ascended beyond the institution of the monarchy. I enclose you a sketch of the royal line; of course the reading of the names is not quite determined, for we have no sufficient evidence as yet of the Phonetic rendering of the names of the Sun, and of the other god whom I am inclined to read Aben; I have computed the chronology on an assumed average of thirty years to each reign." The list contains twenty-five names, of which the Obelisk King, the contemporary of Jehu and Hazael, is the fifteenth. The two first-named are not designated as kings, and they are therefore believed to have preceded the institution of the monarchy.

rate, at Kileh Shirgat, then named Assur, and this is, of course, the *Allasar* of Genesis, of which Arloch was the king. It is also the Tel Assur of the Targums, which is used for the Mosaic Resen; and instead, therefore, of Resen being between Nineveh and Calah, it should be Calah, which was between Nineveh and Resen. I consider these three sites to be now determinately fixed,—Nineveh at Nebbi Yunus, Calah at Nimrud, and Resen at Shirgat.

“Another recent discovery of much interest is a slab of Sennacherib’s, found by the Turks at Nebbi Yunus. It contains an account of two campaigns, later, apparently, than those chronicled in the annals. One was against a son of Merodach Baladan, who had established himself in Chaldæa and Susiana; and the other against the confederate Kings of the East, among whom occur the Persians. Unfortunately, the Persian King’s name is not given; but there are interesting geographical notices.

“The new broken obelisk from Nimrud has not yet reached me; but I expect much from it. It evidently, from the description, is not a duplicate of the old one, but an independent trophy, and belonging to a new king. I hope it may turn out to contain the annals of Divanuras, the builder of Calah.

“I now turn to the real treasure house of discovery, about which I gave you full particulars in my last. I have found fragments of alphabets, syllabaria, and explanations of ideographic signs. In one place, a table of notation, giving the phonetic readings of all the signs, and shewing that the Assyrians counted by sixties, as well as by hundreds, in exact agreement with the *soss*, *sar*, and *ner*, of Berossus. The numbers are completely Semitic, and of great interest. Among the tablets there are also elaborate dissections of the Pantheon; geographical dissertations explaining the ideographic signs for countries and cities, designating their products, and describing their position; the same with the principal Asiatic rivers and mountains. Again, there are treatises on weights and measures, divisions of time, points of the compass, &c., &c. There is an almanack for twelve years, which seems to form a cycle like that of the Mongols. I find, indeed, that all the old annals are numbered according to this cycle, each year having a particular name, generally that of a god. Again, we have lists of stones, metals, and trees; also astronomical and astrological formula without end. I suspect, likewise, there are veritable *grammars* and *dictionaries*.

“The whole collection is in fragments, but it gives us a most curious insight into the state of Assyrian science whilst Greece was still sunk in barbarism. What I regard, however, as most important, is the series of dynasties, or rather of the Kings and their households, or cabinets.

Every King has a separate compartment, and his name is followed by a list of other names, varying from six to thirty. If we ever find a complete tablet of this class, the historical succession will be established. At present I have only fragments of the list, but I have already recovered from them several new royal names, and make little doubt but that when I am able to go through the museum collection, I shall complete the series. The tablets upon which I have been engaged form, it must be remembered, the lower stratum,—the debris, in fact, of the Royal library, while Layard's collection, which was first found, and formed the upper layer, is, of course, in much better preservation. I gave you in my last copies of portions of the syllabaria, and the table of notation, but have really no time to make another copy for you. I have been delighted, amongst other things, to find the ideographs for Warka or Erech; Accad or Kaskar; Calneh or Niffer, &c.; and I have thus, at length, got a sure footing in the slippery field of Babylonian geography. The most difficult portion of the subject is still the Pantheon,—the explanations being usually as obscure as the text. I have not yet found a list of the phonetic readings of the names, but I can hardly doubt that such a list exists, from the frequent occurrence of similar explanations in regard to other subjects. Altogether, I am delighted at the splendid field now opening out. The labour of carrying through a complete analysis will be immense, but the results will be brilliant.

“I have really no time to go into other matters, but I cannot resist mentioning that we have also found a splendid ruin in Southern Chaldaea, named Abu Shahrein, apparently full of marbles and sculptures, and which I shall duly attend to in the autumn.”

The Council have great satisfaction in laying before the meeting an important work, the result of the assiduous industry and acumen of Mr. Norris, to whom the Society is already indebted for the great care and labour bestowed by him on the publication in the Society's Journal, of Colonel Rawlinson's invaluable discoveries. Mr. Norris's acquirements in eastern philology, the zeal with which he has devoted himself to follow up the development of the system of arrow-headed characters, thought for centuries to be hopelessly undecipherable, and the ingenious application of the knowledge so acquired to the solution of an additional problem in cuneatic discovery, reflect the highest honour on his talents and industry; and while his labours thus enable the Society to add to the stores already acquired in this branch of study, they promise to open a field to the further progress of discovery in the same direction.

The work, of which a not quite complete copy is now on the table, is a version of one of the columns of the Behistun Inscription, in a lan-

guage and character which, at its discovery, were thought to be Median. It has been lithographed from the paper impression taken by Colonel Rawlinson, and copies of the plates are given, with a literal transcription in Roman letters. To these are added a verbal translation, and Mr. Norris's Memoir on the Alphabet and Language,—the whole forming a part of the Society's Journal. In the Memoir, it is assumed that the language in which the Inscription was written, was that of the Nomadic tribes who inhabited the Persian Empire; and the Memoir sets forth the grounds on which that assumption rests, and which appear to prove that it is allied, grammatically, and, to a small extent, verbally, also, with the so-called Scythic languages, and especially with the Ugrian branch of that class. The interest of the Memoir is especially philological, and its great value will consist in the further aid it will probably afford in settling the meaning of some passages in the Persian text, while it may be fairly anticipated that the Assyrian, through which alone we can expect any increase to our acquaintance with the ancient history of man, may receive from these publications, additional illustration.

The Evening Lectures, the success of which, in the past year, was a subject of congratulation in the Council's last Report, have been continued during the present season. Five have been delivered, and one more is in preparation. The result has been a full illustration of several important subjects, and an increased interest, on the part of the public, in the labours of the Society.

The first lecture of the present season, was delivered by the Director, upon the Vedas, illustrating the structure and contents of those remarkable books, now no longer hidden in mystery, but actually in course of being printed in the original, and translated into English, and other European languages.

G. B. Greenough, Esq., delivered the second lecture, on the "Physical Structure of India," illustrating especially the river system of the country. The Council hope that Mr. Greenough will carry on the subject into its further branches, on some future occasion.

Dr. R. G. Latham delivered the third lecture, on the "Trans-Gangetic Languages," and such as are connected with them by their Monosyllabic Structure, and are spoken, with scarcely an exception, by the nations inhabiting the countries watered by the south-eastern rivers of Asia.

The fourth lecture, "On Indian products known to the ancients," was by Dr. Royle, who exhibited to his auditory an interesting and extensive collection of specimens, identifying them with articles described by the Greek and Roman writers of the classic age.

The fifth lecture was by James Fergusson, Esq., "On the recent

changes which had taken place in the bed of the Ganges ;" more especially those which had occurred since the survey of the river, effected eighty years ago. The lecture was of peculiar interest, from the connexion shewn necessarily to have existed, and still to exist, between the courses of these mighty streams, and the civilization and prosperity of the regions through which they flow.

The sixth lecture will be delivered by Dr. J. Bird, on the Greek Empire of the Seleucidae, and its influence on the manners and customs of the East.

Oriental Translation Committee.

In noticing the proceedings of the committee of the Oriental Translation Fund, the council have to announce that that body has published during the past year, the sixth volume of the "Bibliographical and Biographical Lexicon" of Haji Khalfa; and they have the satisfaction to learn that the translator and editor, Professor Flügel, is now actively engaged in preparing for the press a supplementary volume, which will include various notices of Mahommedan works, written subsequently to the time of Haji Khalfa.

The committee have aided by their patronage, and are about to issue to their subscribers, a spirited and pleasing poetical translation from the Sanscrit of the Kumara Sambhava, the celebrated poem of Kālidāsa. This translation is from the pen of Mr. R. T. H. Griffith, of Queen's College, Oxford, an oriental scholar who has already distinguished himself by the publication of some elegant versions of Sanscrit poems, entitled "Specimens of old Indian Poetry."

Dr. Woepecke, of Paris, has recently addressed the committee, inviting their attention to the remarkable discovery made by him, of two small mathematical tracts in Arabic, supposed to be versions of the Greek Euclid. One, upon the section of planes, was translated long since, and included in an edition of Euclid, published at Oxford; the other is a treatise on the properties of the lever. Both these tracts have been translated and published by him in a short notice, a copy of which has been presented to the committee by Dr. Woepecke, who has requested the patronage of the committee to a proposed translation of a most interesting commentary upon the Tenth Book of Euclid, which he has recently found in an Arabic manuscript in the Imperial Library, at Paris.

In common with the society, the Committee of the Oriental Translation Fund have to lament, in the death of his Grace the Duke of Wellington, the loss of one of their original patrons and annual subscribers.

Auditors' Report.

Dr. JAMES BIRD read the Report of the Auditors as follows :—

“In presenting their Report the Auditors beg to congratulate the Society on the success which has attended the adoption of the recommendations contained in the Auditors' Report for the year 1851.

“The grant by the Government of the sum of £1000, towards the publication of Colonel Rawlinson's most interesting discoveries, has relieved the society from a burthen, which their limited means were unable to bear; and has placed it in a position to carry on, without inconvenience, by far the most important undertaking in which the Society has been engaged of late years, and which, without this assistance, must probably have been abandoned.

“The abolition of the admission fee has been followed by the accession of forty-two new paying members in the first year, and thirty-two in the second; whereas only twelve were, on an average, admitted during each of the nine preceding years. There has not thus been even the temporary diminution of revenue, which the most sanguine anticipated in the first years of the change: the average income of the preceding years from entrances and subscriptions being £628, whereas, last year, from subscriptions alone, it was £644; and the number of paying members is now greater than at any period during the last ten years, and exceeds the average by twenty-four members, or about twelve per cent; and as there is no reason to anticipate that the accession of members in the ensuing years should be less than the average of the last two, the prosperity of the society may be considered as placed on a far securer basis than before.

“The balance in hand at the end of the last financial year has been £986 4s. 6d., and is estimated at £924 at the end of the present year; and as there is no reason to suppose that the expenditure will exceed the estimate annexed, it is clear that a sum of at least £900 will remain on hand at the end of 1853; and as this is a far larger sum than it appears necessary to keep as a floating balance, the Auditors beg to recommend that the sum of £500 or £600 be invested in Government securities, to replace the amount sold out five years ago, to meet the expense of removal to the present house, which was £642 17s. 1d. consols, realizing £564 3s. 9d.

“JAS. FERGUSSON, } Auditors on the part
H. E. BAGNOLD, } of the Society.

“JAMES BIRD, Auditor on the part of the
Council.

“London, 6th May, 1853.”

ABSTRACT OF RECEIPTS AND DISBURSEMENTS, from the 1st January to 31st December, 1852.

RECEIPTS.		DISBURSEMENTS.	
£	s. d.	£	s. d.
130 Subscriptions of Resident Members, at 3l. 3s. each	409 10 0	House Rent, one Year	280 0 0
28 ditto, Original Members, at 2l. 2s. each	58 16 0	Rates and Taxes	41 12 7
31 ditto, Non-Resident Members, at 1l. 1s. each	32 11 0	Fire Insurance on House	5 12 6
Arrears paid up	27 6 0		£327 5 1
	£528 3 0	Ordinary House Expenses, and Housekeeper Coals	59 14 9
3 Compositions of Resident Members, at 31l. 10s.	94 10 0		15 2 0
2 ditto, Non-Resident, at 10l. 10s.	21 0 0	Salaries of Assistant Secretary, Clerk, Porter, and Armourer	235 12 0
		Collector's Poundage	30 0 0
Second Moiety of Government Grant for the publication of Col. Rawlinson's papers	115 10 0		41 12 3
Annual Donation of the East India Company	500 0 0	Lithography, &c., in Journal	22 14 0
1 Year's Dividend on 1,300l. 3 per Centa.	210 0 0	Stitching Journal and Advertising	64 6 3
Publications sold	37 17 4	Repairs of House, Furniture, &c.	91 7 9
	99 13 8	Books, Bookbinding, and Stationery	27 7 9
		Postage and Carriage, Expenses of Evening Meetings, and Miscellaneous	49 19 3
Balance brought forward from 1851	1491 4 0		£900 14 10
	395 15 4	Balance in hand, end of 1852	986 4 6
	£1886 19 4		£1886 19 4
[Assets, 1,300l. 3 per Cent. Consols.]		JAS. FERGUSON. J. BIRD. M. E. BAGNOLD.	
		} Auditors.	

After the reading of the preceding reports, SIR THOMAS EDWARD COLEBROOKE, BART., moved—

“That the Report of the Council, and that of the Auditors, be received and printed; and that the thanks of the Meeting be given to the Auditors for the efficient discharge of their important duties.”

This motion was seconded by SIR THOMAS ERSKINE PERRY, and carried unanimously.

L. R. REID, Esq., moved, and MAJOR T. WILKINSON, seconded the following motion, which was put from the chair, and carried unanimously—

“That the thanks of this Meeting be given to the Vice-Presidents and Council, for their effective and zealous management of the affairs of this Society.”

SIR GEORGE STAUNTON, BART., one of the Vice-Presidents, acknowledged the vote.

It was moved by H. T. PRINSEP, Esq., seconded by the RIGHT HON. HOLT MACKENZIE, and carried unanimously—

“That the thanks of the meeting be offered to the learned Director, for the valuable services which he renders, and for the unwearied interest he takes in the prosperity of the Society; and for his kindness in taking the chair on the present occasion.”

The Director in returning thanks said, that it afforded him great gratification to be able to contribute his aid in furthering the objects of the Society, and to assist in promoting its prosperity. The best and surest mode of effecting this object was, for every member to do all in his power to support its character by offering to it the results of his studies and experience, and thus enlarge its stock of useful information. The Society had many formidable competitors in different parts of the world; the Asiatic Societies of Paris, Germany, and America, and the Branch Societies in India were all labouring earnestly and successfully, and it behoved the members to exert themselves in order to maintain the reputation of the Society. He hoped he might be allowed according to his usual custom, to bring to the notice of the members one or two remarkable works, which had lately appeared. A memoir left by the lamented Burnouf contains all that deep learning, critical sagacity and an intimate acquaintance with the language, can probably effect in illustration and interpretation of the ancient inscriptions of Kapur di Giri, Girnar and Dhauli. Monsieur Stanislas Julien's

translation of the memoirs of "Hiuen Tsang" which have lately appeared, throw considerable light upon the state of India, at the period when they were written. Hiuen Tsang proceeded to India from China, and resided there for seventeen years about the middle of the seventh century. His object was that of learning Sanscrit, and of translating Buddhist works in that language into Chinese. The memoirs, though chiefly of a personal nature, contain many geographical and historical allusions, which are of considerable value in illustrating the condition of India, at the period of his visit. He has given an account of the Sanscrit language and grammar, and as a specimen has endeavoured to express in Chinese characters three tenses of the verb *bhū*, to be. He has also given an account of the Sāṅkhyā philosophy, thus proving the perfection of that system at the time he wrote. Hiuen Tsang and his coadjutors translated into Chinese many Sanscrit and Pali works, and when we become better acquainted with the interior of China, it is probable that some of these works may be found in the monasteries and religious establishments. He would also bring to the notice of the members a short communication which he had received from the Branch Society of Bombay, which contained an interesting abstract of the results of one branch of the investigations of the cave temples of India, which were now being carried on with great vigour and industry.

"The Reverend Dr. Stevenson, in presenting to the Society his translations of the Nassik inscriptions, remarked, that besides some lesser excavations at Nassik, there were three principal Caves bearing on them the names of four sovereigns, who formerly reigned in the Deccan and Guzerat. The first Cave in the series, that most to the left of the group, was constructed by the Queen of Gotamiputra, for Buddhist priests. King Gotamiputra reigned, it is said in the inscription, over all India, and in describing his kingdom, some Gangetic provinces are first mentioned, and then among the hills that are said to have bounded his empire, the Paryāma, the Sahyādri, the Malaya, on our side of India, then the Mahendra hills in Cuttack and the Himalayas are specified. The king of Lanka (Ceylon) is said also to have submitted to him. It is on this cave, as previously mentioned by Dr. Stevenson, that the date containing the name of the sovereign Padma is mentioned, and which he made out to refer to the Balabhi era, and hence, since it is dated in the year 19, and the era in question commences with A.D. 319, we get for the date of the cave A.D. 338. Dr. Stevenson accounted for the introduction of this era here, by supposing the Balabhi Monarch to have been the father or brother of Gotamiputra's Queen, by whose order the excavation was made. It is curious to notice that in the principal inscription over this cave we have mention made of four different institutions, one a hospital for the sick and infirm, another an institution to teach archery, [i.e. a

military college, the word *dhanur* or archery, being used for military science in general,] a third college for the instruction of Buddhist priests, and a fourth an institution to teach Brahmanical science, all in the capital.

"A second inscription over the same excavation is also a remarkable document, containing a regular deed of sale by the owner of the surrounding fields, making over all his right in them, for a sum of money there stipulated, to an agent commissioned by the monarch to purchase it, shewing a very creditable respect for the rights of private property, and depriving the English Government of the honor of first acting upon just principles in this respect.

"The farthest distant large cave, that most to the right, was excavated by the Senapati (military Governor) of Yadnya, Sri Gotamiputra's son, who is mentioned in the annals of China, as noticed in a previous paper.

"The inscriptions on the central cave, however, are the most interesting of all. They record the largesses of a son-in-law and daughter of one of the Indian Satraps, a race of rulers, Deputies first of the ancient Græco-Bactrian monarchs, next for their Parthian successors, and lastly, independent sovereigns. The Kshatrapa or Satrap mentioned in the inscriptions is named Nahapana, and the Sovereign Kshaharata. Neither of these are Indian names. The last is not very far from the Parthian name Phrahates; and about the time of the reign of the fourth Parthian sovereign of that name. From the form of the letters, the inscriptions, Dr. Stevenson thinks, might have been executed, about B.C. 22. The Satrap son-in-law is called Ushavadatta, son of Dinaka, both of which names seem to prove him to have been a native. One of the inscriptions recording the largesses to Brahmans is written in very good Sanscrit, and mentions Prabhas and other places famous in Hindu story. Mention is made also of an expedition into Malabar to assist the Kshatriya rulers, the Nairs, against an insurrection of the natives.

"The two other principal inscriptions are in different kinds of Pracrit, one apparently in the dialect of the Deccan, and the other in that of Guzerat. A million of Gold Mohurs, or a million and a half sterling, are said to have been dedicated to the support of the Monastery.

"The fact of Brahmans and Buddhists being equally favoured, and the joint currency of the Sanscrit and Pracrit or Pali language at the commencement of our era, are facts fully established by these inscriptions."

Thanking the members once more for the honor they had conferred upon him, he would assure them that as all his labours on behalf of the Society had been productive of great gratification to himself, he should

continue to do all that the time and means at his disposal would allow to maintain the character and promote the objects of the Society.

Moved by DR. BIRD, seconded by CAPTAIN EASTWICK, and carried unanimously—

“That the thanks of the meeting be given to the Honorary Secretary, the Treasurer, and the Librarian, for their valuable services during the past year.”

MR. CLARKE, and MR. ELLIOTT acknowledged the vote.

LIEUTENANT-COLONEL SYKES moved—

“That this meeting desire to record the high estimation in which they hold Mr. Norris’s persevering and enlightened labours in the field of Oriental palæography, and they offer to him their especial thanks for enabling the Society by this last exertion of his talents and acumen, to lay before the world a valuable addition to the stores it already possesses on the languages expressed in cuneatic forms; and a key to further discoveries in this most interesting and important branch of historical and philological research.”

The motion was seconded by the RIGHT HON. HOLT MACKENZIE, and carried unanimously.

MR. NORRIS returned thanks.

CAPTAIN EASTWICK and L. R. REID, Esq., having been appointed Scrutineers, the meeting proceeded to ballot for the Council and Officers for the ensuing year. At the close of the ballot, Professor H. H. WILSON was declared re-elected as Director.

The RIGHT HON. HOLT MACKENZIE was declared duly elected as Vice-President, in the place of Lieutenant-Colonel Sykes, resigned.

The Treasurer, Honorary Secretary, and Librarian were duly elected. The following members were declared elected, to form the Council of the Society for the year:—Colonel M. Bagnold, N. Bland, Esq., J. W. Bosanquet, Esq., Beriah Botfield, Esq., Dr. J. Bird, Major-General J. Briggs, James Fergusson, Esq., G. B. Greenough, Esq., Henry Lewis, Esq., W. H. Morley, Esq., Major J. Oliphant, Sir T. Erskine Perry, Lieutenant-General Sir George Pollock, G.C.B., Henry T. Prinsep, Esq., E. C. Ravenshaw, Esq.

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ROYAL ASIATIC SOCIETY.

PROCEEDINGS

OF THE

THIRTY-SECOND ANNIVERSARY MEETING OF THE SOCIETY

Held on the 19th May, 1855

THE RIGHT HONOURABLE LORD ASHBURTON,

PRESIDENT,

IN THE CHAIR.

THE FOLLOWING REPORT OF THE COUNCIL

WAS READ BY R. CLARKE, ESQ., HONORARY SECRETARY :—

THE Council of the Royal Asiatic Society, in reporting on the transactions of the past year, have to announce, with great regret, a diminution in the number of their members; the new elections being only 8,* while the loss has been, by death 17,† and by retirement 10,‡ causing a total diminution of 19.

* Elections:—1. A. K. Forbes, Esq.; 2. Sir Charles Fox; 3. Sir Moses Montefiore, Bart.; 4. E. C. G. Murray, Esq.; 5. J. W. Redhouse, Esq.; 6. F. H. Robinson, Esq.; 7. Andrew Wight, Esq.; 8. Lieut. Hugh Williams, R.E.

† Deaths, Resident and Non-Resident:—1. J. R. Barnes, Esq.; 2. Henry Blanchard, Esq.; 3. J. F. Elphinstone, Esq.; 4. G. B. Greenough, Esq.; 5. Joseph Hume, Esq., M.P.; 6. Sir Robert Harry Inglis, Bart.; 7. Lord Viscount Jocelyn, M.P.; 8. The Rev. R. Jones; 9. Sir George G. De H. Larpent, Bart.; 10. Mahommed Ibrahim Muckba; 11. William Newnham, Esq.; 12. B. A. R. Nicholson, Esq.; 13. Joseph Phillimore, Esq., LL.D.; 14. Browne Roberts, Esq.; 15. Lieut.-Gen. W. Sandwith, C.B.; 16. John Sullivan, Esq.; 17. A. Trevor, Esq.

‡ Retirements of Resident and Non-resident Members:—1. The Rev. Dr. Arnold; 2. F. Ayrton, Esq. (struck off); 3. Harry Borrodaile, Esq.; 4. Major Close; 5. John Cotton, Esq.; 6. T. W. Henderson, Esq.; 7. J. A. St. John, Esq. (struck off); 8. John Marks, Esq. (struck off); 9. William Henry Martin, Esq.; 10. J. C. Morris, Esq.

Among those of whom we have been deprived by death, the Council are not called upon to record the loss of any eminent Oriental scholar, whose great attainments or peculiar devotedness to the pursuit and extension of our knowledge of Asia would have made it their duty to trace the steps of his literary progress, and to enumerate the works by which the treasures of Eastern learning had been enlarged.

The fame of Mr. GREENOUGH belongs more especially to other Societies, to whose service he dedicated the labours of a long and brilliant career of scientific research, than to the Royal Asiatic Society; but his name cannot be allowed to pass in this Report without a tribute of respect and gratitude for the benefit which India must derive from his extensive investigation of the physical geography of that country. This subject he discussed at large in two lectures delivered in these rooms, illustrating two maps of beautiful structure and minute detail. He also compiled a geological map of India, a remarkable work, the result of the patient labour of many years. Of this map Mr. Greenough presented a copy to this Society, which may at all times be consulted by its members. The East India Company so fully appreciated the value of the information thus imparted that they purchased a large number of copies of the geological map, and have sent it out to the Indian Presidencies, that it may be perfected by the additions or corrections of local observation or more recent discovery.

The loss which the Society has sustained in the death of SIR ROBERT HARRY INGLES is shared with many literary and scientific bodies, to which he gave his liberal support. Whenever the many calls on his time allowed him to attend our meetings, his presence was gladly welcomed as that of the accomplished scholar, the cordial promoter of investigation and research, the courteous and warm-hearted English gentleman. His interest was readily awakened on Indian subjects, towards which his feelings had been early drawn by the distinguished career of his father, Sir Hugh Inglis,—a name honourably recorded in the Annals of the East India Company.

The Council have the pleasure of informing the Meeting that COLONEL RAWLINSON is daily expected in England, having quitted Baghdad early in March. He has closed his diplomatic career, and intends to devote himself wholly to the examination of the inscribed monuments of Assyria and Babylon, of which he brings with him a very numerous collection. We cherish the confident expectation that these lettered monuments, and the stores already deposited in our national Museum, will yield up all their hidden meaning to the steadily

continued investigation of our learned member, whose past labours, although much interrupted by engrossing official duties, and frequently by severe indisposition, have produced a copious harvest of results, invaluable to students in history, palæology, languages, and scientific research. Henceforward he will not only be able to give his undivided exertions to the task, but will have the great advantage of abundant material, much of which is of less fragmentary character than the greatest portion of what he has had to work upon in his Eastern home. The results of Colonel Rawlinson's investigations, since our last Anniversary Meeting, have been, necessarily, less striking than those of former years. The first announcement of discoveries made in an unknown region must, obviously, be more remarkable, and the results more extensively interesting, than the accumulations of still progressive research, the clearing up of obscurities, and rectification of conjectures. But the scholar and student will see in these latter labours a more real addition to positive and certain knowledge than in the first discoveries, which are more popularly interesting. The most striking of the advances of the last year is undoubtedly the discovery of the form and purpose of the *Birs Nimrūd*, the most remarkable of the remains of ancient Babylon; and the finding of two perfect inscribed cylinders deposited in the very places where they were inserted in the time of Nebuchadnezzar, and, very probably, by his own hands. The tenor of the inscriptions on these cylinders has been already communicated by Colonel Rawlinson to the Society; and, on that gentleman's return, we may expect a full and complete translation.

In Western Chaldea, in the marshy plains near the junction of the two great rivers of Mesopotamia, the sites of several ancient cities have been ascertained; and the detailed accounts of two, which have been opened and described by J. E. Taylor, Esq., have been obligingly communicated by the authorities of the British Museum, and read at our Meetings, and they will be found in the Journal of the Society.

The liberality of the East India Company has enabled each member of the Society to possess a copy of the excellent maps of the regions of Nineveh and Babylon, the ancient empire of Assyria, made with great labour and accurate science, by Captain Jones. The map, with the valuable memoir by that officer, accompanied by the scientific detail of his astronomical and trigonometrical observations, will be found in the forthcoming Journal.

Members are aware that the Society has, during the last two years, lent the use of its rooms to the Assyrian Excavation Fund; and its officers have been happy to lend that Association every assistance in their power to carry on the objects for which it was embodied.

The Council have now to announce that the operations of the Fund have ceased, in consequence of an agreement entered into by them with the Trustees of the British Museum, by which they have transferred to that institution the balance of their funds, on the understanding that it would continue the excavations in Assyria for at least a limited period. This arrangement was rendered necessary by the exhaustion of the means at the disposal of the Fund, and the impossibility of collecting money for such purposes in a time of general excitement and pecuniary pressure, caused by the war now carried on in the East.

From the two Reports issued by the Fund, copies of which are on the table, it will be seen that, during the period of its existence, it has done much towards completing the discoveries so brilliantly opened and carried forward by Layard and the French savans, and which have led to such important results in the labours of our distinguished associate, Colonel Rawlinson.

Mr. Loftus, acting for the Fund, has thoroughly explored the ruins of Warka, and examined, more or less completely, all the more important mounds in Babylonia, some of which have yielded very interesting remains; he has also been instrumental in excavating another great palace on the mound of Koyunjik, besides discovering several new buildings both there and at Nimrud. His last discovery has been that of a room at the latter palace, containing an immense number of fragments of ivory and bronze, which appear to have formed a throne, and the furniture of an important apartment in the palace.

Mr. Loftus is now on his way home, bringing with him these ivories, and all the smaller objects he has collected during the excavations, as well as the remainder of the beautiful series of drawings prepared for the Fund by Mr. Boucher, the artist employed by them for the purpose; the latter forming a more perfect series of illustration of the styles of Assyrian sculptures than anything that has yet reached this country from the East.

The Accounts of the Society for the past year, duly audited, will be presented to the Meeting, and will shew that any further diminution of its income can ill be borne. The balance at the close of the last year's account is only £195, being £70 less than at the end of 1853; and of that £195, all but £20, is the balance remaining of the Parliamentary Grant in aid of the publication of the Rawlinson papers.

The Council greatly regret the loss of ten Annual Subscribers by resignation. They are well aware that when the presence of war-taxation is felt, one of the readiest means of retrenching expenditure is found in the discontinuance of subscriptions to public societies; but they would urge on the Members the great importance, not only of not

diminishing, but of promoting an increase of the resources of the Society if it is to carry out efficiently the purposes for which it was founded. The expenses of the Society are not capable of diminution, without serious injury to its best interests; for they consist principally of three items:—first, the rent and taxes for a respectable house, in which to receive their Members, and to preserve their Library and Museum; secondly, the moderate salaries of indispensable officers; and, thirdly, the charges for printing, which, from the nature of their publications, involving the use of various types, and the frequent introduction of illustrations in lithography, cannot be reduced below their present average standard without destroying the value of the works they put forth. But the present insufficiency of liberal support to this Institution has now brought down its income below its expenditure, which has only been met by sinking nearly all the floating balance of the year preceding. This condition of our finances has the effect not only of cramping the operations of the Society in their ordinary course, but of suspending any endeavours for their extension.

There are various measures within the scope of the Society's designs, on which they would gladly enter, were their means sufficient,—measures adapted, and much required, to meet the changes which have taken place in the position and relations of the Society, since the days of its foundation. Among those changes, perhaps the most striking is, that it is no longer, so almost exclusively as it was, the recipient of original communications on the subjects for the investigation of which it was founded, though it may justly claim the merit of having, by the varied and important matter which it collected and communicated to the country through its earlier publications, awakened the desire for a more extended knowledge of India. Researches into the science, physical condition, and arts of the nations of Asia, are now prosecuted by many learned and scientific associations, which have sprung into existence long since the establishment of this Institution; and our supply of communications on Oriental matters has consequently diminished. Still, however, it is through this Society that the important revelations which the energy of Rawlinson has effected, and is progressively enlarging, are made known to the world; and the original communications of our learned Director, and occasional papers from distinguished scholars and diligent investigators, though far less numerous than they were some years since, still impart to our journal an interest peculiarly its own.

But if some subjects which the early labours of the Society were directed to illustrate, have been, in great measure, exhausted, and information on others of general interest has been flowing into other channels, the topics of literary, scientific, and general investigation in

respect of Asia, have been so multiplied, and their limits have so vastly expanded, that they now call forth, not only the enlightened attention and active energies of our own countrymen, but the industry and acumen of our continental neighbours, especially those of Germany and France. Without a watchful observation of what is brought to light in those countries, a very imperfect acquaintance is kept up with the progress of successful research on Asiatic subjects.

It seems to follow from all these considerations that, in addition to its own contributions to the general fund of knowledge respecting Asia and its inhabitants, it is desirable that our society should concentrate information of whatever is produced or illustrated in respect of Asia, by the learning and industry of our own countrymen or by residents in foreign lands; in a word, that the inquirer for information respecting India might be referred to the Royal Asiatic Society as the general depository where investigation may be assisted, and study prosecuted, with the greatest prospect of benefit. But to attain these desirable objects, our library, hitherto composed of valuable, but unconnected donations by liberal benefactors, must have its deficiencies systematically supplied, so that it should contain whatever the student or the man of research may desire to consult for information on the past or present of Eastern Nations. These desirable improvements cannot be made without larger resources than are at our command.

Further, it would be desirable that the Journal should be more frequently and regularly published, and that it should diffuse early information on whatever can interest the scholar and the inquirer respecting the races, the languages, the products, the literature, the arts, the institutions, the habits of its varied populations, and that it should contain occasional reviews, summary analyses, or other notices, of recent and valuable works relating to those subjects, whether in our own or in foreign languages. But to do this effectually the time and talents of scholars conversant with Oriental subjects, and with the languages in which they are treated by our Continental neighbours, must be secured for regular and continuous service; and that cannot be done without liberal remuneration. It would be requisite also that extensive correspondence should be carried on in order that literary productions of importance and value should be early obtained from the quarters in which they have been produced. But little advance can be made in any of these objects without a considerable accession to the funds at the command of the Council: our field of usefulness is wide and fruitful, but the resources at our disposal do not allow us to cultivate it as we desire.

Should the Society be so fortunate as to obtain, at an early period, accommodation in any public building which may be appropriated to

the use of literary associations, the sum which the relief from the present heavy charge for house-rent would liberate, might be beneficially applied to enlarge the sphere of the Society's operations; and the Council have very sincere gratification in announcing that our Noble President has interested himself warmly in our cause; and that in answer to his applications to the Government, and the presentation of a Memorial on the subject, his Lordship received an assurance from the department of Works, that the claim of the Society would be considered whenever the subject of appropriating buildings in Burlington Gardens or elsewhere, to the use of the learned and scientific societies of London, should come for decision before the Government.

The Council have not in the present year made any provision for renewing the course of Evening Lectures, which had been given in the two preceding years. The attendance of members, especially during the last Session, had not proved that sufficient interest was taken in those which were delivered to encourage an endeavour to prevail on gentlemen whose time was much engrossed by laborious occupations during the day to work up topics requiring research and labour, to be produced before such small assemblies as had met to hear the lectures of 1853-4.

It will be the duty of the members assembled at this Annual Meeting to elect a President, the period of three years having elapsed since the appointment of the Noble Chairman, Lord Ashburton, to that office. The experience which the Council and the Society have had of the invariable kindness and courtesy of the Noble Lord, and his readiness to exert his influence for our benefit when occasion presented itself on which it could be rendered available, have only impressed us with feelings of great regret that His Lordship has not been able, by reason of severe indisposition and absence from London, to give us the benefit of his presence and his counsel to the extent to which we are assured that it would have been his desire to do so.

In recommending a successor to the Presidential Chair, the Council anticipate the cordial concurrence of the general body in the sentiment that we shall be only offering a just tribute to the pre-eminent qualifications of our learned Director to hold the most prominent position in all that concerns the object for which the Royal Asiatic Society is embodied, if we call upon him to accept, for the ensuing period of office, the highest place in the Society of which he has so long been, and long may he continue! the honour and stay.

The following five Gentlemen will go out of Council, by rotation this year, in conformity with the Rules of the Society,—Dr. J. Bird, Henry

Lewis, Esq., Major Oliphant, Sir Erskine Perry, Sir Richard Vyvyan ; and it will be for the Meeting to fill up the vacancies. The Council submit for your election the following names :—Colonel Rawlinson, N.B. Edmonstone, Esq., John Muir, Esq., Sir Thomas Edward Colebrooke, Bart., and John Pollard Willoughby, Esq.

The Committee of the Oriental Translation Fund have published, during the past year, the text and scholia of the "Divan of the Huzailis," edited by Dr. Kosegarten, of Greifswald. The concluding and supplementary volume of the Lexicon of Haji Khalfa, edited and translated by Professor G. Flügel, the completion of which was confidently expected last year, has not yet appeared. The delay has been chiefly occasioned by the labour necessary to supply the very useful addition of copious indexes ; and as the Professor has been requested not to extend the work beyond the present seventh volume, sixty sheets of which are already printed, it is hoped that this valuable work will be soon brought to a conclusion.

The Committee have accepted the proposal of the Reverend Canon Cureton, to publish, with the assistance of the Committee, his interesting translation from the Syriac, entitled "Spicilegium Syriacum." This work, which is accompanied by an Introduction and Notes, comprises curious Ante-Nicene remains of Syriac Theology and Philosophy, and will probably greatly illustrate the state of feeling and learning upon those subjects which prevailed when the Mohammedan system commenced.

AUDITORS' REPORT.

The following Report of the Auditors on the Financial Accounts of the Society, was then read by JOHN MUIR, Esq.

The Auditors appointed to examine the accounts of the past year, beg to report that they have gone over them and found them correct, and properly vouched. In presenting this Report, they beg to remark that while the Ordinary Receipts for the year amounted to only £929 11s. 3d., the Disbursements amounted to £909 8s. 1d., or £69 16s. 10d. in excess of the Receipts. This result is not attributable to any extraordinary outlay during the year ; but on the contrary, though we observe one unusual charge in the accounts, viz., that of £75 5s. 10d. for a Catalogue of MSS., yet, as only one Number of the Journal was printed last year, the total amount of the Printer's Bill for 1854 fell short of that for 1853 by more than one hundred pounds ; and the total expenditure for 1854 was less than that for 1853 by about the same sum.

In estimating our probable receipts for the current year, we see reason to apprehend some falling-off as compared with last year ; and

as it does not appear possible that our disbursements can be reduced materially below their present standard, we shall not be in a position to meet current demands without a still further reduction of our balance.

In these circumstances, as it would be very undesirable to continue to draw on the funded capital of the Society to meet ordinary charges, we beg to draw the attention of the members to this unsatisfactory state of our finances, and would suggest that individual members should use their best efforts for enlisting their respective friends among the Society's supporters.

T. C. ROBERTSON.

T. EDWARD COLEBROOKE.

JOHN MUIR.

19th May, 1855.

It was moved by the HONOURABLE PERCY SMYTHE, seconded by W. S. W. VAUX, Esq, and carried unanimously :—

“That the Reports of the Council, and of the Auditors, be received and adopted; and that the thanks of the Society be returned to the Auditors for their services upon this occasion.”

It was moved by SIR THOMAS EDWARD COLEBROOKE, and seconded by MAJOR-GENERAL BAGNOLD, and carried unanimously :—

“That the best thanks of the Meeting be presented to the RIGHT HONOURABLE LORD ASHBURTON for presiding over the affairs of the Society for the last three years, and for the readiness which His Lordship has always evinced to promote its interests.”

LORD ASHBURTON acknowledged the thanks voted to him on his retirement from the Presidentship; and delivered the following address on the condition and prospects of the Society :—

I thank Sir Edward Colebrooke for the friendly and favorable manner in which he has introduced my name, but he will pardon me, I hope, if I hesitate to accept his meed of praise for the continued interest I take in Indian affairs. That can scarcely be considered a merit which is shared by every individual who has at any time taken an earnest part in the responsibilities of Indian Government.

Our relations with that country are of a nature to conciliate a far more lasting sympathy than can be produced by the petty party details of our Home or even of our Colonial Office. We have subdued and made utterly dependent upon our will sixty millions of helpless unresisting beings; we have dethroned their princes, impoverished their gentry, annulled their laws, and now by the contact of a higher civilization we are obliterating their creeds, usages, and habits of thought;

All this we have done, not under the compulsion of destiny, but of our own free will, for our own purposes. And now that it has become our care to sow fresh seed over the waste we have created, can it be attributed as a merit to a sower of that seed, that he has not forgotten to watch its growth, never ceased to pray for its success?

Sir Edward Colebrooke has likewise spoken with favour and consideration of the many deficiencies to be found in my services as President of your Society. Permit me to assure you that these deficiencies have arisen from no indifference to the honor you have conferred on me, no lukewarmness in the objects you pursue. I never would have ventured to accept the office of presiding over your Councils, however great that distinction, if I could have contemplated the possibility of being for two consecutive seasons totally disabled from the performance of its duties. The best requital, however, gentlemen, that I can make to you for your indulgent forbearance is, that I should proceed at once without further allusion to myself, to perform the last task remaining to me, and make some few observations, in obedience to precedent, upon such changes as have occurred during my stewardship materially to affect the interests, or modify the operations, of our Society. This habit of periodical revision, irksome and unprofitable as it may often appear, has nevertheless its use, for in the present revolutionary succession of events it becomes us ever to be on the watch, that our institutions continue suited to the wants and emergencies of the times, lest, as in the case of the dole to the wayfarers at St. Cross, we may be doing mischief instead of good, or as in the case of Emigration Societies we may be found expending our means and energies to produce results better accomplished by the attractions of Australian gold and other providential agencies.

But I have no such change to announce with regard to your Society. My business will be, on the contrary, to prove that its claims on your exertions are at this moment more stringent, more imperative, than was ever contemplated by our illustrious and far-sighted founder.

But before I go to that part of my subject allow me to say a few words respecting the Report which has just been read. I see no reason for discouragement because our funds have suffered from the present temporary stagnation of trade, neither should we repine, I think, if the establishment of the Geological, Mineralogical, and Statistical Societies, should have withdrawn from us as well as from the Royal Society, some active members from our ranks, some interesting papers from our recorded proceedings. The same fate has attended other parent institutions: the Fever, Consumption, and Cancer Hospitals have robbed St. George's and St. Bartholemew's, both of cases for their study, and of funds for their support.

It is not for the friends of progress to grieve over a change, which, however it may restrict our sphere of action, must by the division of labor and concentration of effort do more for the geography, mineralogy, and statistics of India than can ever be effected by our desultory appliances. We are not struggling for the monopoly of doing good, it is enough for us that it should be done. The field withdrawn from our care is barren in comparison with that which remains, and I now revert to the main object of my observations with the view of shewing that the changes that have occurred during the period of my stewardship have given, and are now giving, a more vital importance to the special operations of this Society than was ever even contemplated by its founders.

The first of these special operations to which I shall allude is, that of disseminating in this country a knowledge of Indian products. This work has been so usefully carried out by the ingenious and effective lectures of Dr. Royle within our walls, that the East India Company have assigned to him, at the public cost, a still more extensive sphere of action. And they are right; for unless the foreign purchaser be brought in to relieve the overstocked markets of Indian produce, one of two fearful alternatives must ensue, fatal alike to our Indian Empire: we must either greatly reduce the land revenue and bring on financial embarrassment, or we must, by continuing it at its present rate, impose on the Ryot the necessity of sacrificing an ever increasing portion of his crop in order to defray it. To shew that this is an increasing danger, I might almost content myself with citing the acts of the East India Government. It is only now that they have become awakened to the necessity of taking active measures for its remedy. Not only have they called in the assistance of Dr. Royle, but they have spent five lacs of rupees in the assortment of goods for the Paris Exhibition.

Suffice it therefore to say, that every extension of our rule, every improvement of our administration, increases the produce to be sold by the secure and peaceful cultivator, while at the same moment the market for that produce is diminished by the dissolution of the native courts, by the impoverishment of the gentry, and the disbandment of their retainers. Nay, the very blessing of cheaper and better clothing, the produce of our power looms, has aggravated the mischief by the ruin of whole districts of weavers, who have become in consequence producers, instead of purchasers, of food.

The next function to which I will allude is, that of investigating and recording the histories, manners, laws, and usages of Asiatic nations with a view to keep unbroken the links which connect the several epochs of man's existence. And let me here observe that we do this,

not for the satisfaction of a taste, but for the fulfilment of a duty. It would ill become civilized England to incur the reproach justly levelled against the then barbarous Roman for the extinction of all traces of Carthaginian civilization, or against the then brutal Spaniard for having obliterated from the world's history, every record of the only cultivated people of America.

We have undertaken, I may almost say on behalf of the Government, to fulfil this obligation, and the Government acknowledges our services by her annual pittance. Has there been any change in India to make this obligation less imperative? Far from it. The sphere of our action has been from year to year enlarged, by the overthrow of dynasties whose pride it was to encourage native learning, and preserve the records of their ancestors. But a still greater change is about to result from the extension of education, in accordance with the suggestion of the admirable Report which has been just issued.

By that scheme a new world of thought is opened out to the native student. He is encouraged to desert his own barren literature for the more fruitful branches of knowledge to be acquired through the literature of the West.

We rejoice to see this change. It bids fair to regenerate the faith, to improve the social relations, and purify the morals of our brethren in India, as well as to promote their advancement in art, wealth, and comfort; but, on the other hand, it imposes on us the necessity of taking on ourselves the duties not only of the Sovereigns whom we have dethroned, but also of the learned bodies whose attention has been diverted through our means to more attractive studies.

I come now to the last and most important change of all, the change in the Government of India, consummated by the late Charter Act. In this room we are not politicians. Whether in this room or out of this room we are good and loyal Englishmen; we accept with submission the laws of our country; we do our best to work them for good. It is in this spirit that I now allude to the late Charter Act. My object is to show, that if at the time of the foundation of this Society, it was desirable that the people of England should be made conversant with the wants, wishes, and feelings of their Indian fellow-subjects, it becomes ten-fold more imperative now, when an act has been passed which must, step by step, reduce the Government of India to a pure despotism of ignorant men, unchecked by the voice of the governed, and answerable only to the control of public opinion in this country.

The Bill of last session, to an ordinary observer, makes but little change in the distribution of power between the Court of Directors and the Board of Control, but to any man cognizant of the working of the system, it is but too evident that the balance of power so carefully

established by Mr. Pitt has been destroyed, and that the Court is left at this moment at the mercy of the minister of the day.

The Government of India, as conceived by Mr. Pitt, consisted of an Indian element and an Imperial element.

From the Indian element he required the traditional knowledge, the kindred sympathies which should connect the governors with the governed; from the Imperial element he demanded only that extent of control which was necessary to maintain the predominance of Imperial above local interests. Power was therefore given to the President of the Board to overrule any and every resolution of the Court of Directors, but in order to prevent the abusive exercise of this power to the supersession of administration by the Court, Mr. Pitt left the Directors so independent in their origin, so powerful to work on public opinion at home, as to enable them to withstand the usurpations of the Board of Control.

They represented the Court of Proprietors, composed at that time of the best of the trade of London. They had the monopoly of the trade of India and China; they held the distribution of a patronage more valuable than that of the Crown. The result was, that in spite of the omnipotence of the Board, the Court did in very deed carry on the administration of India; and it is to that administration by men of Indian interest, Indian knowledge, and European intelligence, that we owe the wonderful expansion of our glorious Eastern Empire.

Every change since the time of Mr. Pitt, whether wise or unwise, necessary or unnecessary, has tended to impair the balance of power which constituted the leading feature of his Constitution.

The monopolies of trade were withdrawn, the Proprietors were reduced to the condition of annuitants. They became less fit for the responsible duties of election. No care was taken to repair the mischief by the infusion of other elements of independence and disinterestedness.

Still, however, the prestige of past greatness supported the Directors, and public opinion gave them strength to resist any gross usurpation of their salutary functions; but by the proceedings of these last years their weakness has been manifested to the world, the character of the proprietary body which elects them has been exposed, and virtually condemned by the verdict of Parliament; and the result is, that one portion of the Directors are selected by a discredited Constituency, while the other portion are to sit with them at the choice of the very power whose usurpation they are intended to resist.

How can we expect that such a body, mulcted of half of their power by the loss of their principal patronage, disconnected from the civil service, exercising an authority which was pronounced by ministers in both Houses of Parliament to be merely provisional, how can we expect them to resist the omnipotence of the minister?

We may expect, therefore, to see the Government of India carried on according to the good pleasure of the minister who may happen for the time to represent the current public opinion of this country. It is, therefore, to the cultivation of that public opinion, as the only check to preserve the lives and liberties of our Indian brethren, that the best energies of our Institution must be diverted. Wherever, therefore, we turn, whether we regard the gradual but far from imperceptible changes induced by the unfolding of successive events, or whether we look to the more striking changes brought on by the direct agency of man, we see ample reason for congratulation that this Society has been established, that it still continues to present objects worthy of earnest pursuit to an association of serious men.

We see further that a Society which performs such functions as these in aid of the Government, has claims upon that Government far beyond any which can be put forward by other Societies in this metropolis. I have urged those claims, and I trust that they will have due weight when the assignment of rooms in Burlington House is made.

Lastly, Gentlemen, before I sit down, allow me to congratulate you upon the appointment you have made in your new President.

The learned Societies in this country, unlike similar Societies abroad, consist of two classes; they include not only men of thought, but men also of influence and action; not only those who investigate truth and make great discoveries, but those also who popularize and put them in practice.

Each of these classes has within itself its own special jealousies and asperities; each has the property of neutralizing the asperities and jealousies of the other. Separate these classes, and you will find their Society constrained, unimaginative, almost insipid; fuse them together, and you will not only find their faults neutralized, but their efficiency increased. It is true that the unlearned members contribute no knowledge of their own, but they do contribute that unfeigned sympathy, that ready admiration, which are powerful incentives to exertion in others. Add further, that they stand as a disinterested, unsuspected medium between rivals to prevent the rude jar of immediate contact. It would be as unwise to remove the worldly element from the meetings of the learned as it would be exclude the humanizing influence of women from general society.

It has been the habit of our various scientific associations to select their office bearers indifferently from these two classes, but on this occasion there can be no doubt, no embarrassment, in the choice. We have in our ranks one who unites in his own person the highest qualifications of both. It was with pride, therefore, that we have all hastened, learned and unlearned, to secure to the Asiatic Society the advantages to be derived from the lustre of his name, the extent of his knowledge, and the wisdom of his counsels.

Before I sit down, let me thank you for the patience with which you have listened to me. If I have trespassed too long on your attention, if I have used language too strong for the occasion, it is because I feel deeply. The task you have undertaken is a serious task. It involves the welfare of sixty millions of human beings.

The following vote was moved by CAPTAIN EASTWICK, seconded by PROFESSOR GOLDSTÜCKER, and carried unanimously :—

“That the cordial thanks of the meeting be offered to the Director, the Vice-Presidents, and the Council of the Society, for their zealous exertions in the discharge of the duties of their offices,—so essential to the best interests of the Society.”

It was moved by MAJOR-GENERAL BAGNOLD, seconded by ROBERT HUNTER, Esq., and carried unanimously :—

“That the cordial thanks of the meeting be given to the Secretary, Treasurer, and Librarian for their zealous fulfilment of the duties devolving upon them.”

The Treasurer and the Secretary acknowledged the vote.

L. R. REID, Esq., and K. R. H. MACKENZIE, Esq., having been appointed Scrutineers, the Meeting proceeded to ballot for Officers and Council, in accordance with the Regulations of the Society.

At the close of the ballot, Professor H. H. WILSON was declared unanimously elected to fill the office of President of the Society for the ensuing three years.

CHARLES ELLIOTT, Esq., RICHARD CLARKE, Esq., and JOHN SHAKESPEAR, Esq., were severally declared re-elected to the respective offices of Treasurer, Honorary Secretary, and Librarian; and the following members were reported to be elected into the Council for the ensuing year :—Bagnold, Major-General; Bland, Nathaniel, Esq.; Bosanquet, J. W., Esq.; Briggs, General John, F.R.S.; Colebrooke, Sir Thomas Edward, Bart.; Edmonstone, N. B., Esq.; Fergusson, James, Esq.; Latham, Dr. R. G.; Muir, John, Esq.; Pollock, Lieutenant-General Sir George, G.C.B.; Priaulx, Osmond De Beauvoir, Esq.; Rawlinson, Colonel, C.B.; Robertson, T. C., Esq.; Sykes, Colonel, F.R.S.; Willoughby, J. P., Esq.

Thanks were voted to the Right Honourable Chairman for his conduct in the Chair; and the next Ordinary Meeting was announced for the 2nd of June.

ABSTRACT OF RECEIPTS AND DISBURSEMENTS, from 1st January to 31st December, 1854.

RECEIPTS.		DISBURSEMENTS.	
£	s. d.	£	s. d.
142 Subscriptions of Resident Mem- bers, at 3 <i>l.</i> 3 <i>s.</i>	447 6 0	House Rent, one Year	280 0 0
22 ditto, Original Members, at 2 <i>l.</i> 2 <i>s.</i>	46 4 0	Parochial rates, one Year to Christmas, 1853	26 0 10
26 ditto, Non-Resident Members, at 1 <i>l.</i> 1 <i>s.</i>	27 6 0	Assessed Taxes and Water Rate	26 7 8
Arrears of Subscription paid up	36 15 0	House Expenses and Housekeeper's Wages	58 11 1
	<u>£557 11 0</u>	Coals, 18 <i>l.</i> 12 <i>s.</i> ; Gas, 2 <i>l.</i> 7 <i>s.</i> 6 <i>d.</i>	20 19 6
		Salaries of Assistant Secretary, Clerk, and Porter	229 12 0
Compositions of Subscriptions	73 0 0	Collector's Poundage	28 10 0
Annual Donation of the East India Company	210 0 0	Printer's Bill for Journal, Vol. 15, Part 1	113 5 0
Dividends on Consols	61 16 10	" Catalogue of MSS.	75 5 10
Publications sold	37 3 5	" Report, Lists, &c.	24 14 3
	<u>372 0 3</u>	Stitching, 7 <i>l.</i> 11 <i>s.</i> 1 <i>d.</i> ; Lithography, 14 <i>l.</i> 14 <i>s.</i> ..	22 5 1
		Books, Periodicals, and Binding	32 5 9
Balance brought from 1853	929 11 3	Repairs, &c.	4 8 0
	<u>265 15 2</u>	Postage and Carriage	10 7 1
		Evening Meetings	8 9 8
		Sundries and Balance in Secretary's hands....	38 6 4
			<u>93 16 10</u>
		Balance in hand, end of 1854	£999 8 1
			<u>195 18 4</u>
			<u>£1195 6 5</u>

[Assets, 1806*l.* 19*s.* 5*d.* Three per Cent. Consols.]

LIST OF THE MEMBERS
OF
THE ROYAL ASIATIC SOCIETY
OF
GREAT BRITAIN AND IRELAND.

CORRECTED TO AUGUST, M.DCCC.LV.

1855.

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